PART A

IONOSPHERIC DATA

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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

CRPL-F135
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CONTENTS

SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1952, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given in Document No. 626-E referred to above, plus an additional symbol, R: "Scaling of characteristic is influenced or prevented by absorption in the neighborhood of the critical frequency," (May 1955).

a. For all ionospheric characteristics:

Values missing because of A, C, F, L, M, N, Q, R, S, or T are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F2 (and h'E near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of G are counted:

1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic; the symbol D, only when it replaces a frequency characteristic.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of E or G (and B when applied to the daytime E region only) are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D. C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, the data are considered insufficient and no median value is computed.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, as long as there are at least five values, the median is not considered doubtful.

3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

The same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F18.

The tables and graphs of ionospheric data are correct for the values reported to the CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of the errors are due to:

a. Differences in scaling records when spread echoes are present.

b. Omission of values when foF2 is less than or equal to foF1, leading to erroneously high values of monthly averages or median values.

c. Omission of values when critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series report IRPL-F5.

Ordinarily, a blank space in the fEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'F1, foF1, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'F1 and foF1 is usually the result of seasonal effects.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the CRPL-D series publications. The following points are worthy of note:

a. Predictions for individual stations used to construct the charts may be more accurate than the values read from the charts since some smoothing of the contours is necessary to allow for the longitude effect within a zone. Thus, inasmuch as the predicted contours are for the center of each zone, part of the discrepancy between the predicted and observed values as given in the F series may be caused by the fact that the station is not centrally located within the zone.

b. The final presentation of the predictions is dependent upon the latest available ionospheric and radio propagation data, as well as upon predicted sunspot number.

c. There is no indication on the graphs of the relative reliability of the data; it is necessary to consult the tables for such information.

PREDICTED AND OBSERVED SUNSPOT NUMBERS

The following predicted smoothed 12-month running-average Zürich sunspot numbers were used in constructing the contour charts:

Month	Predicted Sunspot Number										
	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946
December		42	11	15	33	53	86	108	114	126	85
November		35	10	16	38	52	87	112	115	124	83
October		31	10	17	43	52	90	114	116	119	81
September		30	8	18	46	54	91	115	117	121	79
August		27	8	18	49	57	96	111	123	122	77
July		22	8	20	51	60	101	108	125	116	73
June		18	9	21	52	63	103	108	129	112	67
May		16	10	22	52	68	102	108	130	109	67
April	68	13	10	24	52	74	101	109	133	107	62
March	60	14	11	27	52	78	103	111	133	105	51
February	53	14	12	29	51	82	103	113	133	90	46
January	48	12	14	30	53	85	105	112	130	88	42

The latest available information follows concerning the corresponding observed Zürich numbers (some of which may be subject to minor change) beginning with the minimum of April 1954.

Observed Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	9	12
1955	14	16	19	23								

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 63 and figures 1 to 126 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
Buenos Aires, Argentina
Decepcion I.

Australian Department of Supply and Shipping, Bureau of Mineral Resources, Geology and Geophysics:
Watheroo, Western Australia

University of Graz:
Graz, Austria

British Department of Scientific and Industrial Research, Radio Research Board:
Falkland Is.
Inverness, Scotland
Port Lockroy
Singapore, British Malaya
Slough, England

Defence Research Board, Canada:
Baker Lake, Canada
Churchill, Canada
Winnipeg, Canada

Radio Wave Research Laboratories, National Taiwan University, Taipeh, Formosa, China:
Formosa, China

Danish National Committee of URSI:
Godhavn, Greenland

The Royal Netherlands Meteorological Institute:
De Bilt, Holland

Icelandic Post and Telegraph Administration:
Reykjavik, Iceland

Indian Council of Scientific and Industrial Research, Radio Research Committee, New Delhi, India:
Ahmedabad, India (Physical Research Laboratory)
Bombay, India (All India Radio)
Calcutta, India (Institute of Radio Physics and Electronics)
Delhi, India (All India Radio)
Madras, India (All India Radio)
Tiruchy (Tiruchirapalli), India (All India Radio)

Ministry of Postal Services, Radio Research Laboratories, Tokyo, Japan:
Akita, Japan
Tokyo (Kokubunji), Japan
Wakkanai, Japan
Yamagawa, Japan

Norwegian Defence Research Establishment, Kjeller per Lillestrom, Norway:
Oslo, Norway
Tromso, Norway

South African Council for Scientific and Industrial Research:
Nairobi, Kenya (East African Meteorological Department)

Research Institute of National Defence, Stockholm, Sweden:
Upsala, Sweden

Royal Board of Swedish Telegraphs, Radio Department, Stockholm, Sweden:
Lulea, Sweden

Post, Telephone and Telegraph Administration, Berne, Switzerland:
Schwarzenburg, Switzerland

United States Army Signal Corps:
Adak, Alaska
Ft. Monmouth, New Jersey
Okinawa I.
White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):
Anchorage, Alaska
Fairbanks, Alaska (Geophysical Institute of the University of Alaska)
Guam I.
Huancayo, Peru (Instituto Geofisico de Huancayo)
Maui, Hawaii
Narsarssuak, Greenland
Panama Canal Zone
Puerto Rico, W. I.
San Francisco, California (Stanford University)
Talara, Peru (Instituto Geofisico de Huancayo)
Washington, D. C.

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 64 through 75 follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given above under "Symbols, Terminology, Conventions." Beginning with September 1949, the data are taken at Ft. Belvoir, Virginia.

IONOSPHERIC STORMINESS AT WASHINGTON, D.C.

Publication of ionosphere character figures for Washington, D. C., was discontinued with data for September 1955, published in CRPL-F134. Inquiry concerning ionospheric conditions at Washington should be addressed to North Atlantic Radio Warning Service, Box 178, Ft. Belvoir, Virginia.

ERRATA

1. F134, p. 51, table 97: Footnote after ** should read "off the air from 1440-1700."

2. F134, p. 23, table 64: foF2 column at 1800 should read (6.8). Corresponding change should be made in graph, fig. 127, p. 83, same issue.

3. Significant changes in table 11, p. 14, F132, Formosa, China, June 1955, are given in table 63a, p.19, this issue. Corresponding changes should be made in graphs, figs. 21 and 22, p. 60, F132.

4. F132, p. 53, table 100: Last four words of title should read, "as Observed in England."

Table 1

Washington, D. C. (38.7°N, 77.1°W) October 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.0					<1.6	3.0
01	270	3.8					<1.6	3.0
02	270	3.7					<1.6	3.0
03	260	(3.6)					<1.6	3.0
04	250	3.1					2.1	3.1
05	270	2.7					<1.6	3.1
06	260	3.4					<1.6	3.1
07	230	5.6	---	---	(120)	1.9	3.0	3.4
08	240	7.0	220	---	110	2.5	3.6	3.4
09	250	7.5	210	---	110	2.8	3.7	3.4
10	260	7.8	200	(4.2)	110	3.0	3.4	3.3
11	260	8.2	200	4.7	110	3.1	4.0	3.2
12	280	8.6	200	(4.5)	100	3.2		3.2
13	270	9.0	210	(4.6)	100	3.2		3.2
14	270	9.0	220	(4.4)	110	3.1	3.3	3.2
15	250	9.0	220	---	110	2.8	3.1	3.2
16	240	8.6	230	---	110	2.4	2.8	3.3
17	220	8.0	---	---	(120)	<1.6	2.2	3.3
18	220	6.6			---	---	<1.6	3.3
19	230	5.8					2.2	3.1
20	240	5.0					<1.6	3.1
21	260	4.5					<1.6	3.0
22	270	4.2					<1.6	3.0
23	270	4.1					<1.6	3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 2

Tromso, Norway (69.7°N, 19.0°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	(3.2)					3.8	(2.7)
01	---	(2.8)					3.9	(2.7)
02	---	(3.2)					3.8	(2.7)
03	---	(2.6)					3.6	(2.7)
04	(295)	2.8			---	---	3.3	2.9
05	290	3.2	---	---	---	---	<2.1	2.9
06	(265)	3.8	255	---	---	---	<2.2	(3.1)
07	---	4.5	245	---	120	2.1	2.1	(3.1)
08	(300)	5.0	240	---	135	2.2	2.4	(3.2)
09	(330)	5.1	235	4.1	110	2.4	2.4	2.9
10	315	5.4	220	4.0	105	2.4	<2.7	3.05
11	305	5.8	220	4.0	105	2.5		3.1
12	295	5.9	225	3.9	110	2.5		3.1
13	(290)	5.6	225	4.1	110	2.4		3.15
14	---	5.3	225	---	---	2.4	2.6	(3.1)
15	---	5.0	240	---	110	2.2	2.7	(3.1)
16	250	4.9	245	---	130	2.1	2.8	3.1
17	250	4.8	245	---	---	1.8	2.8	3.1
18	250	4.8	---	---	---	1.7	2.8	3.1
19	250	4.6					3.3	3.1
20	(250)	(4.0)					3.2	(3.0)
21	---	(4.0)					3.8	(2.9)
22	---	(3.3)					3.7	(2.85)
23	---	(3.5)					3.5	(2.85)

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 3

Narsarssuak, Greenland (61.2°N, 45.4°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	320	(2.8)					4.2	3.0
01	(360)	(2.8)					4.2	(2.8)
02	---	---					4.3	---
03	---	---					4.0	---
04	---	---					4.8	---
05	310	(2.7)					4.4	(3.0)
06	270	3.3			---	---	3.1	3.3
07	(260)	4.0	230	---	120	2.1	3.3	3.3
08	290	4.4	220	3.8	110	2.4	2.6	3.3
09	310	4.8	220	3.8	110	2.6	3.4	3.2
10	360	4.8	210	3.9	110	2.8	2.8	3.1
11	340	5.0	220	3.9	120	2.8		3.1
12	330	5.1	210	4.0	110	2.8		3.05
13	340	5.2	210	4.0	110	2.9		3.1
14	320	5.2	220	3.9	110	2.8		3.15
15	300	5.1	220	3.8	110	2.6		3.15
16	310	4.9	230	3.7	110	2.4	3.4	3.2
17	290	4.6	250	3.5	120	2.1	3.3	3.1
18	280	4.4	---	---	120	---	3.8	3.2
19	300	3.8			---	---	4.2	3.1
20	280	(3.3)					4.3	3.1
21	300	3.1					5.8	3.1
22	(280)	3.0					5.2	(3.1)
23	(320)	(3.0)					5.5	(3.15)

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 4

Oslo, Norway (60.0°N, 11.1°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	2.7					<1.6	2.8
01	(300)	(2.1)					<1.4	(2.8)
02	(325)	(1.9)					(2.7)	(2.7)
03	(305)	(2.2)					(3.5)	(2.65)
04	(300)	(1.8)					(1.7)	(2.7)
05	---	2.6			---	---	(1.6)	2.9
06	(255)	(3.3)	250	---	110	(1.6)	(2.6)	(3.1)
07	(260)	(4.1)	(230)	---	(110)	(1.8)	(2.4)	(3.25)
08	(310)	(4.6)	(220)	---	(110)	(2.2)	(2.8)	(3.2)
09	300	5.0	210	4.2	105	2.5	2.9	3.2
10	310	5.4	210	4.2	110	2.7	3.0	3.15
11	300	5.6	200	4.2	105	2.8	3.3	3.15
12	300	5.8	200	4.3	105	2.8	3.0	3.15
13	305	5.9	215	4.2	110	2.9	3.4	3.1
14	290	5.8	215	---	105	2.8	3.0	3.2
15	270	5.6	220	---	105	2.6		3.2
16	255	5.6	230	---	105	2.4	2.4	3.2
17	255	5.7	240	---	110	2.2	2.2	3.15
18	250	5.6	250	---	---	1.7	1.8	3.15
19	250	5.3	---	---	---	---	2.0	3.1
20	245	5.1					<1.6	3.05
21	250	4.4					<1.6	3.05
22	250	3.7					<1.6	3.0
23	(260)	3.0					<1.6	2.9

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 5

Upsala, Sweden (59.8°N, 17.6°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	2.8					2.9	2.8
01	310	2.6					3.0	2.8
02	315	2.5					2.8	2.8
03	325	2.3					3.0	2.8
04	330	2.1			---	E	2.8	2.8
05	290	2.8	---	---	---	E	2.5	3.0
06	260	3.8	240	3.1	140	1.7	2.5	3.1
07	290	4.4	230	3.4	120	2.1	2.8	3.1
08	310	4.9	220	3.8	110	2.4	3.1	3.1
09	315	5.3	215	4.0	110	2.6	3.4	3.1
10	300	5.5	210	4.1	110	2.7	3.3	3.1
11	300	5.7	210	4.2	110	2.8	3.2	3.1
12	300	6.0	210	4.2	110	2.8	3.0	3.1
13	295	6.0	215	4.2	110	2.9	3.3	3.2
14	290	6.0	220	4.0	110	2.7	3.0	3.2
15	265	5.7	220	3.9	110	2.6	3.0	3.2
16	270	5.7	230	3.6	115	2.4	2.8	3.2
17	260	5.8	240	3.1	125	1.8	2.8	3.1
18	245	5.8	255	2.8	---	E	3.0	3.2
19	245	5.6			---	E	3.0	3.1
20	250	5.0			---	---	2.9	3.0
21	250	4.5					2.6	3.0
22	260	3.8					2.6	2.9
23	290	3.1					2.6	2.9

Time: 15.0°E.
Sweep: 1.4 Mc to 17.0 Mc in 6 minutes, automatic operation.

Table 6

Adak, Alaska (51.9°N, 176.6°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.1					<1.4	2.8
01	300	2.9					<1.3	2.8
02	300	2.9					<1.4	2.8
03	300	3.0					<1.8	2.8
04	300	2.9					<1.3	2.8
05	280	3.1			130	1.3	2.0	2.9
06	260	4.0	260	3.0	120	1.6	2.3	3.0
07	300	4.5	240	3.6	120	2.2		3.1
08	350	4.8	230	3.9	110	2.5	2.5	3.1
09	340	5.0	220	4.1	110	2.8	3.0	3.1
10	300	5.3	210	4.2	110	2.9	3.1	3.0
11	340	5.4	210	4.3	110	3.0	3.8	3.0
12	330	5.8	210	4.3	110	3.0		3.1
13	320	5.6	210	4.3	110	(3.0)	3.0	3.1
14	310	5.6	220	4.2	110	2.9	3.4	3.2
15	280	5.6	220	(4.2)	110	2.6	3.2	3.2
16	270	5.4	230	(4.0)	110	2.5		3.3
17	250	5.2	240	---	120	2.1		3.3
18	240	4.9			130	---	2.4	3.2
19	250	4.6					2.6	3.1
20	250	4.2					2.3	3.1
21	260	4.2					2.5	3.1
22	270	3.8					<1.8	3.0
23	280	3.3					<1.4	2.9

Time: 180.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 7

Graz, Austria (47.1°N, 15.5°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	1.0						
01	300	3.9						
02	310	3.6						
03	300	3.5						
04	300	3.3						
05	300	3.2						
06	250	4.2	---	---				
07	240	4.9	---	---				
08	250	5.8	225	4.1			3.9	
09	250	6.3	200	4.2			3.6	
10	285	6.6	200	4.4			4.0	
11	280	6.4	200	4.7				
12	280	6.9	208	4.5				
13	280	6.7	200	4.4				
14	270	6.6	200	4.5				
15	255	6.7	210	4.1				
16	250	6.8	215	4.0				
17	240	7.0	---					
18	240	7.1						
19	250	6.8					3.1	
20	250	5.4						
21	250	4.8						
22	265	4.6						
23	290	4.1						

Time: 15.0°E.
Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 8

Ft. Monmouth, New Jersey (40.3°N, 74.1°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.6					<1.6	2.95
01	280	3.3					<1.6	2.9
02	270	3.0					<1.6	3.0
03	270	2.8					<1.6	3.0
04	270	2.3					<1.6	3.1
05	280	2.4					<1.6	3.0
06	250	4.0	240	---	130	<1.6	1.7	3.3
07	260	5.1	230	(3.7)	120	2.4	2.3	3.4
08	270	5.9	220	(4.1)	110	2.7	2.7	3.3
09	280	6.2	210	4.3	110	(3.0)	3.3	3.3
10	300	6.4	200	4.5	110	3.2	3.0	3.2
11	300	6.6	200	4.6	110	3.3	3.1	3.1
12	310	6.6	200	4.6	110	3.3		3.1
13	310	6.7	210	4.6	110	3.3		3.1
14	300	6.6	220	4.5	110	3.2	2.1	3.2
15	308	6.6	220	4.3	110	3.0		3.1
16	270	6.6	230	(4.0)	110	2.6		3.2
17	260	6.7	230	(3.6)	120	2.2	2.2	3.2
18	240	6.6	---	---	---	<1.6	<1.6	3.2
19	230	6.1					<1.6	3.1
20	240	5.3					<1.6	3.0
21	260	4.6					<1.6	3.0
22	270	4.1					<1.6	2.9
23	280	3.8					<1.6	2.9

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 9

White Sands, New Mexico (32.3°N, 106.5°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.7					<1.6	2.9
01	290	3.8					<1.6	2.85
02	280	3.8					<1.6	2.9
03	280	3.7					1.9	3.0
04	270	3.6					<1.7	2.9
05	270	3.6					2.0	2.9
06	260	4.2	260	---	---	---	3.1	3.1
07	260	5.7	230	3.6	110	2.3	4.7	3.2
08	270	6.7	210	4.2	110	(2.7)	3.8	3.3
09	200	6.7	200	4.4	110	(3.0)	6.5	3.2
10	310	6.8	200	4.6	110	3.2	5.0	3.1
11	320	7.4	200	4.7	110	3.3	4.8	3.0
12	310	7.8	200	4.7	110	3.4	4.4	3.0
13	300	7.8	200	4.7	110	3.4	3.8	3.0
14	300	8.0	200	4.6	110	3.2	4.2	3.1
15	290	7.8	220	4.4	110	3.0	4.1	3.1
16	270	7.3	230	4.1	110	2.8	3.6	3.2
17	250	7.0	230	---	110	2.3	3.4	3.3
18	230	6.8	---	---	---	---	2.9	3.3
19	220	5.3					2.4	3.2
20	240	4.2					<2.2	3.1
21	260	4.1					<1.8	2.9
22	<280	3.8					<1.6	2.9
23	280	3.6					<1.6	2.9

Time: 105.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 10

Okinawa I. (26.3°N, 127.0°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	(4.7)					2.0	(2.9)
01	280	4.8					2.2	3.0
02	260	4.6					<1.8	3.05
03	240	4.5					<1.6	3.2
04	240	3.9					<1.4	3.2
05	240	3.4					<1.4	3.2
06	250	3.8	---	---			<1.7	3.2
07	230	6.3	230	---	120	2.0	3.0	3.7
08	240	7.0	220	---	110	(2.7)	3.8	3.6
09	250	7.1	210	(4.5)	110	(3.0)	4.4	3.5
10	280	7.2	210	4.9	110	(3.2)	4.5	3.3
11	310	8.3	200	5.0	110	(3.5)	4.6	3.0
12	320	9.6	200	5.0	110	---	4.2	3.0
13	310	10.8	200	5.1	110	3.6	4.8	3.1
14	300	11.0	220	5.0	110	(3.4)	4.2	3.1
15	280	10.6	220	4.8	110	3.3	3.9	3.1
16	280	10.4	220	(4.6)	110	(3.0)	3.7	3.3
17	260	10.5	230	(4.4)	110	(2.5)	4.0	3.35
18	240	9.2	240	---	120	(2.0)	4.2	3.35
19	230	8.7					4.0	3.4
20	220	>6.9					2.8	3.2
21	240	5.3					2.7	3.05
22	300	4.6					2.4	2.85
23	310	4.6					2.0	2.0

Time 135.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 11

Formosa, China (25.0°N, 121.5°E) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	6.0					2.6	2.9
01	280	5.8					2.4	2.95
02	270	5.3					2.2	3.0
03	240	4.9					2.0	3.4
04	240	3.8					<2.0	3.3
05	240	3.1					<2.0	3.2
06	240	5.4			---	<1.8	<1.8	3.5
07	230	6.8	---	---	120	2.5	<3.1	3.6
08	250	7.4	238	4.2	120	2.9	4.0	3.35
09	280	7.4	220	4.6	120	3.2	4.3	3.2
10	290	8.2	218	4.0	128	3.4	5.6	2.9
11	320	9.7	210	4.9	120	3.4	4.4	2.9
12	330	11.1	210	4.0	---	---	5.0	2.9
13	300	12.8	220	4.9	---	---	4.8	3.0
14	300	12.7	220	4.8	120	3.4	4.2	3.1
15	280	13.2	230	4.6	120	3.2	4.0	3.2
16	270	13.0	240	4.3	120	2.9	4.1	3.2
17	260	12.3	240	3.8	---	---	3.4	3.3
18	240	12.2	---	---	---	---	3.9	3.4
19	220	9.2					3.2	3.4
20	220	7.0					2.7	3.1
21	280	6.0					2.8	2.8
22	320	5.7					2.4	2.7
23	310	5.8					2.6	2.8

Time: 120.0°E.
Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.

Table 12

Maui, Hawaii (20.8°N, 156.5°W) September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	4.0					2.2	2.8
01	280	4.7					<1.6	2.9
02	260	4.5					1.6	3.1
03	250	3.6					<1.5	3.3
04	280	3.2					<1.2	3.0
05	290	3.1						2.85
06	290	3.4					<1.2	2.9
07	260	6.1	260	---	130	2.1	2.8	3.3
08	280	6.8	240	---	120	2.7	4.2	3.2
09	300	6.9	220	(4.6)	120	3.1	5.2	3.1
10	340	7.6	220	5.0	120	3.3	6.0	2.65
11	360	8.5	220	4.9	120	3.5	5.0	2.7
12	380	9.4	220	5.0	120	3.6	5.7	2.7
13	360	10.3	220	4.9	120	3.6	4.7	2.7
14	340	10.8	230	4.9	120	3.5	4.6	2.8
15	340	11.0	230	4.7	120	3.3	5.5	2.9
16	300	11.6	240	4.5	120	3.0	4.6	3.1
17	270	11.1	240	4.2	120	2.5	3.8	3.2
18	240	10.5	---	---	---	---	3.4	3.3
19	230	8.2					3.2	3.3
20	240	6.4					3.0	3.1
21	260	5.6					3.2	2.7
22	300	5.0					3.0	2.7
23	300	5.0					2.7	2.8

Time: 150.0°W.
Sweep: 1.8 Mc to 25.0 Mc in 13.5 seconds.

Table 13

Puerto Rico, W. I. (18.5°N, 67.2°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	4.7					<1.8	2.9
01	270	4.6					<1.8	3.0
02	250	4.8					<1.7	3.2
03	230	4.2					<1.6	3.2
04	250	3.8					<1.6	3.15
05	250	3.6					<1.6	3.1
06	240	3.8			---	<1.6	<1.6	3.3
07	220	5.8	220	---	120	2.0		3.6
08	240	6.2	210	---	110	2.7	2.8	3.5
09	280	6.0	200	4.5	110	3.0	3.8	3.3
10	300	7.2	200	4.7	110	3.3	4.0	3.2
11	310	7.9	200	4.8	110	3.5		3.0
12	310	9.3	200	4.8	110	3.5		3.0
13	310	9.4	210	4.8	110	3.6		3.0
14	300	9.7	210	4.8	110	3.5	3.8	3.05
15	290	10.0	210	4.7	110	3.3	4.2	3.1
16	270	10.2	220	4.5	110	3.0	4.2	3.25
17	250	9.4	220	---	110	2.5	3.0	3.35
18	230	0.6	230	---	120	<2.0	3.2	3.4
19	210	6.8					2.2	3.3
20	230	5.6					2.4	3.1
21	270	4.9					2.3	3.0
22	290	4.6					2.2	2.9
23	300	4.7					<1.9	2.9

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 14

Guam I. (13.6°N, 144.9°E) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	8.1					<1.7	3.05
01	250	7.1					<1.5	3.25
02	230	6.3					<1.8	3.4
03	230	5.0					<1.5	3.4
04	240	3.3					<1.3	3.3
05	240	2.8					1.2	3.3
06	250	3.4					<1.5	3.25
07	240	6.7	220	---	110	2.1	2.5	3.4
08	270	8.2	200	---	110	2.0	3.6	3.25
09	300	9.2	200	---	110	3.1	3.8	3.0
10	320	9.4	200	4.8	110	3.3	4.0	2.65
11	330	9.6	200	4.0	100	3.4	4.1	2.5
12	350	9.4	200	4.8	100	3.5	4.4	2.5
13	350	9.7	200	4.8	100	3.4	4.0	2.6
14	340	10.3	210	4.8	110	3.4	3.9	2.7
15	320	11.0	210	4.7	110	3.3	3.8	2.95
16	290	12.0	220	---	110	3.0	3.8	3.1
17	280	11.9	230	---	120	2.4	3.7	3.2
18	250	11.0	---	---			3.2	3.2
19	270	10.4					2.2	3.0
20	200	10.0					<1.7	3.0
21	250	9.7					2.0	3.1
22	240	8.6					<2.1	3.1
23	250	8.4					1.8	3.0

Time: 150.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 15

Panama Canal Zone (9.4°N, 79.9°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	5.6					2.4	3.1
01	240	5.6					2.3	3.5
02	230	3.9					1.9	3.5
03	240	2.9					2.0	3.2
04	250	2.9					1.9	3.1
05	250	2.7					<1.6	3.25
06	260	3.2					1.8	3.1
07	240	5.6	230	---	120	2.2	2.9	3.4
08	200	6.2	210	4.4	110	2.7	3.8	3.2
09	340	7.0	200	5.0	110	3.1	4.0	2.8
10	360	8.0	210	4.9	110	3.4	4.8	2.7
11	350	9.8	200	4.9	110	3.6	4.3	2.8
12	360	10.6	200	5.0	110	3.6	4.0	2.9
13	350	11.5	210	4.9	110	3.6	4.6	2.9
14	320	12.2	210	4.8	110	3.5	4.6	3.0
15	290	12.0	220	4.7	110	3.3	4.3	3.1
16	280	12.0	220	4.5	110	3.0	4.4	3.2
17	250	11.7	220	(4.1)	110	(2.5)	3.8	3.3
18	230	10.4	240	---	---	---	3.0	3.3
19	220	8.4					3.0	3.1
20	230	7.8					2.2	3.0
21	240	6.4					<1.0	3.0
22	270	5.9					<1.7	3.0
23	200	5.4					<1.7	2.9

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 16

Talara, Peru (4.6°S, 81.3°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	(8.6)					<1.5	3.35
01	230	(7.2)					<1.5	3.35
02	230	5.9					<1.5	3.3
03	230	4.7					1.6	3.4
04	240	3.8					1.8	3.3
05	250	3.2					<1.8	3.3
06	260	2.7			120	---	2.1	3.0
07	240	5.8			120	(2.2)	3.5	3.2
08	---	7.2	220	---	120	2.8	5.3	2.9
09	320	0.0	210	(4.4)	120	3.2	4.8	2.6
10	360	8.4	200	4.6	110	3.5	5.0	2.4
11	370	8.8	200	4.7	110	3.6	3.8	2.2
12	400	9.0	200	4.0	110	3.6	4.0	2.2
13	380	9.0	200	4.8	110	3.6	4.6	2.3
14	360	9.2	200	4.6	110	3.5	3.5	2.5
15	330	9.6	200	4.5	110	3.3	5.4	2.5
16	310	9.9	200	---	110	2.9	5.2	2.5
17	---	9.4	230	---	110	2.5	4.4	2.6
18	260	9.2					2.8	2.6
19	290	(9.1)					<1.8	(2.6)
20	300	(8.9)					<1.6	(2.6)
21	250	(9.0)					2.9	(2.8)
22	230	(9.2)					<2.0	3.1
23	220	(9.2)					1.9	3.25

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 17

Huancayo, Peru (12.0°S, 75.3°W) — September 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	7.0					<1.5	3.3
01	230	6.1					<1.5	3.2
02	230	5.4					<1.5	3.2
03	240	4.9					<1.3	3.2
04	260	4.2						3.2
05	270	3.6					<1.5	3.2
06	260	4.6			---	---	<1.5	3.2
07	(230)	7.2	230	---	120	2.4	6.3	3.2
08	290	8.4	220	---	110	3.0	10.2	2.8
09	320	8.9	200	4.4	100	---	11.5	2.6
10	340	8.1	200	4.6	100	---	11.6	2.5
11	370	7.8	200	4.7	100	---	11.4	2.5
12	370	7.0	200	4.7	100	---	12.0	2.5
13	360	8.0	190	4.7	100	---	11.6	2.5
14	330	8.5	190	4.6	100	---	11.2	2.5
15	320	8.6	190	---	100	---	10.5	2.5
16	(300)	8.5	210	---	110	---	10.0	2.5
17	240	8.5	240	---	110	---	6.9	2.6
18	270	8.2					<1.5	2.7
19	320	7.6					<1.5	2.5
20	300	7.3					<1.5	2.7
21	260	7.6					<1.6	2.9
22	230	7.8					<1.5	3.1
23	220	7.6					<1.6	3.2

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 18

Tromso, Norway (69.7°N, 19.0°E) — August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(200)	4.0					4.0	2.85
01	(260)	3.7					3.0	2.9
02	(290)	3.7	---	---	---	---	3.6	2.9
03	(280)	3.4	---	---	---	---	3.1	2.95
04	(275)	3.0	250	---	110	1.8	3.2	(3.0)
05	(430)	4.0	245	3.3	105	2.1	2.8	(2.7)
06	(395)	4.4	225	3.6	110	2.2	2.5	2.9
07	360	4.7	225	3.8	105	2.5	2.8	2.9
08	370	4.0	210	4.0	105	2.6	2.0	2.9
09	350	5.0	210	4.0	105	2.0	3.0	3.0
10	335	5.1	215	4.1	100	2.8	3.0	3.1
11	330	5.2	205	4.1	100	2.8	3.2	3.1
12	345	5.0	210	4.1	105	2.8	2.9	3.1
13	350	5.0	205	4.2	105	2.8	<3.0	3.1
14	335	5.0	205	4.1	105	2.8		3.1
15	340	5.0	210	4.1	105	2.7		3.1
16	(295)	4.8	220	3.8	105	2.6		3.2
17	---	4.8	235	---	105	2.3	3.0	(3.1)
18	(250)	4.8	240	---	110	2.0	3.2	3.2
19	255	4.7	245	---	110	1.8	3.2	3.1
20	255	4.6	---	---	---	---	3.2	3.1
21	270	4.8			---	---	3.7	3.0
22	(260)	4.4					3.8	(2.9)
23	(275)	(4.4)					4.7	(2.9)

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 19

Fairbanks, Alaska (64.9°N, 147.8°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	(2.9)					4.0	(3.1)
01	270	(3.5)					4.4	(3.0)
02	290	(3.4)					5.8	(3.0)
03	300	(3.4)			---	---	4.6	2.9
04	300	3.6	270	---	---	---	4.5	3.1
05	360	4.0	240	3.2	120	1.7	4.2	(3.0)
06	360	4.2	230	3.4	110	2.1	5.7	3.0
07	370	4.5	220	3.6	110	2.3	4.1	3.0
08	390	4.6	200	3.8	100	2.6	3.2	2.8
09	410	4.8	210	4.0	100	2.7	3.3	2.8
10	370	4.8	200	4.0	100	(2.8)	3.8	3.0
11	370	4.8	200	4.0	100	2.9	3.3	3.0
12	390	4.8	200	4.1	100	2.9	3.6	2.9
13	380	4.8	210	4.1	100	2.0	3.2	3.0
14	360	4.8	200	4.1	100	2.8	2.9	3.0
15	360	4.6	210	4.0	110	2.7	2.6	3.05
16	340	4.7	210	3.9	100	2.4	2.6	3.2
17	320	4.6	220	3.8	110	2.2	2.6	3.15
18	290	4.6	220	(3.6)	120	2.1	2.6	3.2
19	230	4.6	240	---	120	1.8	2.6	3.25
20	240	4.3			---	---	3.9	3.3
21	240	4.0					4.0	3.15
22	250	(3.8)					4.4	(3.1)
23	250	(3.3)					4.5	(3.2)

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 20

Baker Lake, Canada (64.3°N, 96.0°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	4.0	---	---	105	1.0	5.0	3.15
01	240	3.9	---	---	105	1.0	5.3	3.1
02	250	3.6	---	---	105	1.0	5.0	3.1
03	250	3.4	---	---	105	1.2	5.0	3.1
04	260	3.3	260	---	105	1.5	5.0	3.2
05	270	3.5	240	2.9	105	1.9	4.1	3.15
06	310	3.9	230	3.1	105	2.2	5.0	3.1
07	350	4.1	220	3.5	105	2.5	5.2	2.9
08	420	4.3	220	3.8	100	2.9	5.0	2.8
09	450	4.4	210	4.0	100	3.0	5.0	2.7
10	460	4.6	230	4.1	100	3.3	3.9	2.8
11	440	4.7	230	4.2	100	3.3	5.0	2.8
12	390	4.8	220	4.2	100	3.3	5.0	2.9
13	390	4.8	210	4.1	100	3.2	4.6	2.9
14	370	5.0	220	4.2	100	3.1	3.3	3.0
15	360	5.1	220	4.0	100	3.0	3.2	2.9
16	340	5.2	210	4.0	100	3.0	3.4	3.0
17	330	5.1	230	3.9	100	2.9	5.1	3.0
18	310	5.0	240	3.7	105	2.7	5.0	3.1
19	200	4.9	240	3.2	105	2.4	6.0	3.1
20	260	4.5	250	3.0	105	2.0	6.0	3.1
21	260	4.4	---	---	110	1.8	7.0	3.1
22	260	4.1			110	1.4	7.0	3.1
23	240	4.0			110	1.1	5.8	3.1

Time: 90.0°W.
Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 21

Anchorage, Alaska (61.2°N, 149.9°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	2.8					<1.8	3.0
01	280	2.4					2.4	3.0
02	310	2.4					2.7	2.85
03	300	2.3					2.6	2.8
04	<300	2.8	300	---	---	---	<1.6	3.0
05	420	3.3	250	2.9	130	1.6		2.85
06	390	3.8	230	3.3	120	2.0	2.0	2.8
07	440	4.0	220	3.6	120	2.3		2.7
08	420	4.4	210	3.7	110	2.5	2.5	2.0
09	410	4.5	210	3.9	110	2.7	2.7	2.75
10	400	4.7	210	4.0	110	2.8		2.05
11	380	4.8	210	4.0	110	2.8	2.9	3.0
12	400	4.8	200	4.1	110	(2.8)		2.9
13	420	4.7	210	4.1	110	(2.8)		2.9
14	400	4.7	210	4.0	110	(2.8)		2.8
15	380	4.7	220	4.0	110	(2.7)		3.0
16	340	4.6	220	(3.9)	110	(2.6)		3.0
17	310	4.5	220	(3.0)	120	2.3		3.1
18	290	4.5	230	(3.5)	120	2.0		3.1
19	250	4.5	240	---	130	(1.7)	2.5	3.2
20	250	4.2	250	---	---	---	2.7	3.1
21	250	4.2					<1.7	3.1
22	250	4.1					2.6	3.1
23	250	3.4					2.4	3.0

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 22

Churchill, Canada (58.8°N, 94.2°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.0			---	---	6.2	---
01	280	3.8			---	---	6.0	---
02	280	3.7			---	---	5.2	---
03	300	3.3			---	---	5.0	---
04	300	3.5			---	---	5.0	(3.1)
05	300	3.8	---	---	120	2.8	4.5	(3.0)
06	300	4.0	---	---	120	3.0	5.0	3.1
07	350	4.2	220	3.9	115	3.2	5.1	2.95
08	430	4.4	240	3.9	110	3.0	5.6	2.95
09	400	4.6	220	4.0	110	3.1	5.0	2.9
10	400	4.7	210	4.1	105	3.2	5.0	2.9
11	390	5.0	200	4.2	110	3.2	4.4	2.9
12	400	5.0	210	4.2	105	3.2	5.0	3.0
13	400	5.0	210	4.2	110	3.2	4.2	2.9
14	380	5.1	220	4.1	110	3.2	3.4	3.0
15	380	5.1	220	4.1	120	3.1	4.0	3.0
16	370	5.3	220	4.0	115	3.0	4.0	3.05
17	330	5.4	220	3.9	115	2.9	4.0	3.0
18	300	5.2	240	3.8	120	2.7	4.5	3.0
19	280	5.0	---	---	120	2.8	3.5	3.1
20	300	4.3			120	3.0	4.3	3.0
21	300	4.2			130	2.2	4.3	(3.0)
22	280	4.0			---	---	6.0	(3.1)
23	270	3.8			---	---	6.5	(3.0)

Time: 90.0°W.
Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 23

De Bilt, Holland (52.1°N, 5.2°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.2					2.2	2.9
01	265	3.8					3.0	2.9
02	275	3.6					2.6	2.9
03	275	3.4					3.1	2.9
04	260	3.2					3.0	3.0
05	250	3.8	240	3.2	130	1.7	2.4	3.1
06	310	4.4	220	3.7	105	2.1	3.5	3.2
07	305	4.8	220	4.0	100	2.5	4.2	3.2
08	315	5.2	200	4.1	100	2.8	4.2	3.2
09	300	5.4	205	4.2	100	3.0	4.6	3.2
10	300	5.6	200	4.4	100	3.1	4.1	3.2
11	315	5.6	200	4.5	100	3.1	3.6	3.2
12	320	5.5	200	4.4	100	3.3	3.6	3.2
13	340	5.4	200	4.5	100	3.3	3.6	3.0
14	325	5.4	200	4.3	100	3.2	3.2	3.2
15	310	5.2	200	4.2	100	3.1	3.4	3.2
16	315	5.2	215	4.1	105	2.8	3.6	3.1
17	300	5.5	225	3.9	100	2.4	3.8	3.1
18	275	5.8	230	3.2	120	1.9	4.0	3.05
19	250	6.7					4.1	3.1
20	230	6.7					3.4	3.1
21	235	6.0					3.9	3.1
22	245	5.2					3.2	3.1
23	250	4.4					2.2	2.9

Time 0.0°.
Sweep: 0.8 Mc to 20.0 Mc in 20 seconds.

Table 24

Winnipeg, Canada (49.9°N, 97.4°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	2.8					2.2	3.0
01	290	2.5					2.6	3.0
02	300	(2.5)					2.9	(2.95)
03	320	2.5					3.0	(2.95)
04	310	(2.5)					3.8	(2.95)
05	290	2.6			---	1.7	2.6	(3.0)
06	350	3.2	240	3.0	120	1.9	3.2	3.0
07	500	3.8	220	3.7	110	2.4	3.1	(2.5)
08	400	4.2	210	3.9	110	2.8		3.0
09	400	4.6	210	4.0	110	3.0		2.9
10	380	5.0	200	4.2	105	3.2	3.2	3.0
11	370	5.1	200	4.3	105	3.3	3.3	2.9
12	370	5.0	200	4.4	105	3.5	3.5	3.0
13	400	5.1	200	4.3	100	3.4	3.4	2.9
14	380	5.1	210	4.4	105	3.3	3.3	3.0
15	380	5.1	210	4.2	105	3.2	3.2	2.95
16	360	5.2	220	4.0	105	3.0		3.0
17	330	5.0	220	4.0	110	2.9		3.1
18	300	5.0	230	3.7	110	2.5		3.1
19	270	5.0	240	3.0	120	2.0	2.9	3.2
20	240	5.0			---	(1.8)	2.1	3.2
21	240	4.8						3.1
22	250	4.0					3.0	3.1
23	260	3.2						(3.0)

Time: 90.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 16 seconds.

Table 25

Graz, Austria (47.1°N, 15.5°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.2						
01	290	4.1						
02	300	3.9						
03	300	3.7						
04	295	3.2						
05	295	3.7						
06	(250)	4.7		(3.6)			3.4	
07	(250)	(5.2)		3.9			4.2	
08	(290)	(5.2)	(210)	4.2			4.8	
09	(300)	(5.9)	(200)	4.4			4.8	
10	---	(6.3)	(200)	4.4			4.8	
11	(300)	---	200	4.6			4.8	
12	(310)	(6.2)	(200)	4.6			5.0	
13	---	(6.6)	(210)	4.5		(3.5)	5.0	
14	300	(5.8)	210	4.5			4.5	
15	300	5.9	200	4.4			4.0	
16	290	5.0	220	4.1			3.8	
17	270	5.0	210	3.9			3.8	
18	280	(5.4)		3.6			4.9	
19	260	(6.6)					4.9	
20	250	---					5.0	
21	250	---					4.8	
22	250						4.4	
23	265	4.7					3.7	

Time: 15.0°E.
Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 26

Schwarzenburg, Switzerland (46.8°N, 7.3°E) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	4.6						3.35
01	260	4.1						3.3
02	260	4.0						3.3
03	260	3.5						3.3
04	270	3.2						3.25
05	250	3.0						3.3
06	200	4.2	---	---	100	1.9		3.7
07	200	5.0	---	---	100	2.3		3.8
08	260	5.2	200	4.0	100	2.7		3.5
09	260	6.0	200	4.2	100	2.9		3.7
10	300	6.0	200	4.3	100	3.0		3.6
11	300	5.8	200	4.4	100	3.2		3.5
12	300	6.0	200	4.5	100	3.2		3.5
13	300	5.8	200	4.5	100	3.3		3.5
14	300	6.0	200	4.5	100	3.2		3.5
15	300	5.8	200	4.4	100	3.1		3.5
16	300	5.6	200	4.2	100	3.0		3.5
17	275	5.3	200	4.0	100	2.7		3.5
18	290	5.4	---	---	100	2.5		3.35
19	---	---			---	---		---
20	200	7.0						3.6
21	210	6.8						3.6
22	200	5.9						3.55
23	200	5.0						3.6

Time: 15.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 27

San Francisco, California (37.4°N, 122.2°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(260)	(3.8)					(3.0)	(3.0)
01	270	(3.7)					2.4	(2.9)
02	(270)	(3.7)					(2.3)	(2.95)
03	260	(3.6)					(2.1)	(3.1)
04	260	(3.5)					2.0	(3.0)
05	260	(3.4)					<1.7	(3.0)
06	260	4.1	(240)	(3.2)	(120)	(2.0)	<2.8	3.1
07	320	4.8	220	(3.7)	(100)	(2.3)	3.4	3.15
08	370	5.2	200	(4.1)	(100)	(2.8)	3.9	2.9
09	340	5.6	200	(4.3)	(110)	(3.0)	4.4	2.9
10	340	5.7	200	(4.4)	(110)	(3.2)	3.8	3.0
11	330	5.6	210	(4.4)	(110)	(3.3)	4.4	3.0
12	350	5.7	(200)	(4.4)	(110)	(3.5)	4.0	2.9
13	370	5.7	210	(4.4)	(110)	---	4.6	2.9
14	350	5.9	210	(4.4)	(110)	(3.3)	3.5	3.0
15	330	5.9	210	(4.3)	(110)	(3.2)	3.8	3.0
16	320	5.7	210	(4.2)	(110)	(3.0)	4.0	3.1
17	300	5.5	220	(3.9)	(110)	---	3.6	3.2
18	<270	5.5	230	(3.5)	(110)	---	3.2	3.2
19	240	5.6	---	---			(2.4)	3.2
20	230	5.7					(3.0)	3.2
21	230	5.2					(3.3)	3.2
22	<240	(4.6)					(2.9)	(3.2)
23	<250	(4.0)					(2.9)	(3.1)

Time: 120.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 28

Talara, Peru (4.6°S, 81.3°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	5.9					<1.5	3.4
01	230	4.6					<1.4	3.3
02	240	4.0					<1.2	3.3
03	240	4.0					<1.4	3.3
04	240	3.4					<1.3	3.4
05	240	3.0					<1.4	3.3
06	260	2.7					<1.6	3.2
07	240	4.4	210	---	130	1.8	<2.3	3.2
08	---	6.0	210	---	110	2.5	4.7	3.0
09	(340)	6.4	200	---	110	3.0	5.7	2.6
10	440	6.7	200	4.4	110	3.3	5.0	2.4
11	430	7.2	200	4.5	110	3.4	5.0	2.2
12	460	7.3	200	4.5	110	3.5	4.8	2.2
13	460	7.5	190	4.5	110	3.5	4.8	2.2
14	420	7.6	200	4.4	110	3.4	4.2	2.3
15	400	7.8	200	4.3	110	3.2		2.4
16	370	8.0	200	4.2	110	3.0	3.4	2.5
17	---	8.5	210	---	110	2.5	3.4	2.6
18	240	8.5	240	---	120	1.8	<2.2	2.8
19	260	8.0					<2.0	2.8
20	260	7.7					<1.6	2.9
21	260	7.1					<1.5	3.0
22	250	7.0					<1.6	3.1
23	240	7.0					<1.6	3.35

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 29

Huancayo, Peru (12.0°S, 75.3°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	5.3					<1.5	3.4
01	230	4.9						3.4
02	230	4.1						3.4
03	240	3.6						3.3
04	240	3.2					<1.3	3.3
05	280	2.5					<1.3	3.1
06	280	2.5						3.0
07	240	5.6	230	---	110	2.1	6.0	3.2
08	300	6.8	210	---	110	---	9.4	3.0
09	330	7.5	200	4.3	110	---	10.9	2.7
10	360	7.1	200	4.4	100	---	11.2	2.6
11	380	6.7	190	4.5	100	---	11.6	2.6
12	400	6.6	190	4.5	100	---	12.2	2.5
13	380	6.8	190	4.5	100	---	11.3	2.5
14	400	6.8	190	4.4	110	---	11.4	2.5
15	370	7.0	190	4.2	110	---	10.7	2.55
16	320	7.4	200	---	110	---	8.6	2.7
17	230	7.3	220	---	110	2.2	5.8	2.8
18	260	7.1					<1.5	2.85
19	270	6.9					<1.6	2.9
20	260	6.9					<1.6	3.0
21	240	7.0					<1.5	3.2
22	220	6.7					<1.5	3.3
23	230	5.8					<1.5	3.4

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 30

Reykjavik, Iceland (64.1°N, 21.8°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(290)	(4.5)					(4.2)	---
01	(300)	(4.0)					4.1	---
02	300	(3.8)			---	---	4.5	(3.0)
03	300	3.5			---	---	3.2	3.0
04	290	3.6	250	(2.8)	110	1.6	2.5	3.0
05	350	3.8	230	3.2	110	1.8	2.5	3.1
06	340	4.0	220	3.6	100	(2.2)		2.95
07	360	4.2	220	3.7	100	2.4	2.6	3.0
08	340	4.5	210	3.9	100	2.6		3.1
09	360	4.6	200	4.0	100	2.7		3.1
10	370	4.6	200	4.0	100	(2.8)	3.0	3.0
11	390	4.8	200	4.2	100	(2.8)	<3.1	2.9
12	380	4.8	200	4.2	100	(2.8)		3.0
13	370	4.9	200	4.2	100	(2.8)		3.0
14	360	4.9	200	4.2	100	(2.8)		3.0
15	380	4.9	200	4.1	100	(2.8)		3.0
16	360	5.0	200	4.0	100	(2.7)		3.0
17	350	4.9	210	4.0	100	(2.6)		3.0
18	330	4.9	220	3.9	100	(2.5)	2.9	3.0
19	300	4.7	220	3.5	110	2.2	3.4	3.1
20	300	4.7	230	(3.4)	110	(1.9)	3.7	3.1
21	300	(4.6)	---	---	110	---	3.6	(3.1)
22	300	(4.2)	---	---	---	---	4.5	---
23	(300)	(4.7)	---	---			4.1	---

Time: 15.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 31

Anchorage, Alaska (61.2°N, 149.9°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.0					<1.4	3.0
01	260	3.2					<1.3	2.9
02	280	3.1					<1.6	2.9
03	280	3.2	270	---	---	---	<1.4	2.9
04	380	3.6	250	3.0	130	1.6	2.2	2.8
05	400	4.0	240	3.2	120	2.0	2.2	2.7
06	400	4.3	220	3.4	110	2.2	<2.6	2.7
07	400	4.5	220	3.6	110	2.5	2.8	2.7
08	420	4.6	210	3.8	110	2.6	3.0	2.8
09	420	4.7	210	4.0	110	2.8	3.2	2.7
10	430	4.7	210	4.1	110	2.9	3.3	2.7
11	420	4.8	200	4.1	110	3.0	3.4	2.75
12	420	4.7	210	4.2	110	(3.0)	3.2	2.8
13	480	4.8	210	4.2	110	(3.0)	3.0	2.65
14	440	4.8	210	4.1	110	(2.8)		2.7
15	400	4.7	210	4.1	110	(2.0)		2.8
16	370	4.7	220	4.0	110	2.6		2.9
17	340	4.6	220	3.8	110	2.4		3.0
18	320	4.5	220	3.7	120	2.2		3.1
19	300	4.5	230	(3.4)	120	2.0	2.8	3.1
20	270	4.5	240	---	130	1.7	2.3	3.1
21	260	4.6	---	---	---	---	2.7	3.1
22	250	4.5					2.0	3.0
23	250	4.3					<1.7	3.0

Time. 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 32

Graz, Austria (47.1°N, 15.5°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	4.9						
01	290	4.6						
02	290	4.2						
03	290	3.9						
04	290	3.8						
05	250	4.3		3.1				
06	300	5.0	240	3.7			3.6	
07	300	(5.3)	200	4.1			5.0	
08	300	5.2	200	4.2			5.0	
09	300	5.3	200	4.4	---	(3.1)	5.0	
10	300	6.0	200	4.5	---	(3.3)	4.9	
11	325	5.8	200	4.7	---	(3.4)	4.8	
12	325	5.9	195	4.6	---	(3.5)	5.0	
13	320	(5.4)	200	4.6	---	(3.4)	5.0	
14	310	5.9	200	4.5	---	(3.4)	4.9	
15	330	5.2	200	4.4			4.1	
16	300	5.4	200	4.2			4.5	
17	310	5.2	210	4.0			4.2	
18	290	5.6	240	3.8			4.0	
19	260	6.2		3.3			3.0	
20	250	7.0					4.6	
21	250	7.0					3.7	
22	250	6.0						
23	265	5.2						

Time: 15.0°E.
Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 33

Wakkanai, Japan (45.4°N, 141.7°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	5.3					4.5	
01	280	4.8					4.3	
02	290	4.6					3.5	
03	280	(4.4)					3.5	
04	270	4.2					3.5	
05	290	4.8					3.5	
06	320	5.4					5.0	
07	320	5.6					6.0	
08	300	5.0					6.0	
09	320	5.9					6.2	
10	340	5.6					6.2	
11	380	5.4					5.7	
12	400	5.4					6.0	
13	380	5.3					5.0	
14	400	5.3					5.1	
15	400	5.4					5.4	
16	360	5.2					5.3	
17	330	5.4					5.5	
18	320	5.4					5.6	
19	290	5.8					5.2	
20	280	6.5					6.0	
21	280	6.6					5.0	
22	280	6.1					4.5	
23	280	5.2					4.5	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 34

Akita, Japan (39.7°N, 140.1°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.2					5.6	
01	300	4.0					4.3	
02	300	4.7					4.0	
03	290	4.6					3.5	
04	290	4.2					3.5	
05	290	4.6					3.5	
06	300	5.3					4.6	
07	320	5.6					5.5	
08	320	6.2					6.6	
09	340	5.7					6.6	
10	360	5.6					7.0	
11	400	5.8					7.0	
12	380	5.7					7.2	
13	400	6.0					6.6	
14	390	5.8					6.6	
15	370	5.9					6.1	
16	350	6.0					5.0	
17	340	5.6					5.6	
18	320	6.0					5.5	
19	290	6.4					5.5	
20	280	6.6					5.2	
21	280	6.2					6.5	
22	290	5.0					4.6	
23	300	5.5					5.6	

Time: 135.0°E.
Sweep: 0.05 Mc to 22.0 Mc in 2 minutes.

Table 35

Tokyo, Japan (35.7°N, 139.5°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.0					5.0	2.8
01	300	5.0					4.7	2.85
02	280	4.9					4.8	2.9
03	270	4.6					3.5	3.0
04	260	4.7					4.2	3.0
05	250	4.5	240	3.0	---	---	3.3	3.1
06	280	5.3	240	3.8	110	2.3	4.2	3.1
07	290	6.0	230	4.1	110	2.7	5.5	3.2
08	280	6.1	230	4.2	110	3.0	5.6	3.15
09	300	5.7	200	4.4	110	3.2	7.0	3.2
10	360	5.9	200	4.6	110	3.3	7.2	3.0
11	380	5.7	---	---	110	3.4	7.2	2.9
12	390	5.9	---	4.5	110	3.4	7.0	2.9
13	340	6.2	---	---	110	3.3	7.2	3.0
14	340	6.2	---	4.5	110	3.2	6.9	3.0
15	330	6.2	---	4.2	110	3.1	5.8	3.0
16	310	6.2	240	4.2	110	2.8	6.4	3.05
17	310	6.1	240	4.0	110	2.6	7.0	3.05
18	300	6.6	240	3.4	120	2.0	6.2	3.05
19	260	6.6					6.5	3.1
20	250	6.5					5.2	3.0
21	260	5.8					4.8	3.0
22	280	5.6					4.8	2.9
23	300	5.5					4.5	2.9

Time: 135.0°E.
Sweep: 1.0 Mc to 17.2 Mc in 2 minutes.

Table 36

Yamagawa, Japan (31.2°N, 130.6°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.8					3.7	
01	300	5.0					5.6	
02	280	5.5					3.7	
03	250	5.4					3.2	
04	260	4.8					3.2	
05	250	4.1					2.4	
06	250	5.0					3.3	
07	260	5.8					4.2	
08	280	6.0					5.8	
09	310	5.9					6.4	
10	340	5.9					8.8	
11	390	5.0					8.6	
12	300	6.1					8.7	
13	360	6.5					7.5	
14	350	6.7					0.6	
15	340	6.9					7.2	
16	340	6.4					6.4	
17	330	7.3					7.0	
18	300	7.4					6.7	
19	270	7.2					5.9	
20	250	7.0					5.9	
21	250	6.5					5.6	
22	290	5.8					5.7	
23	300	5.5					3.0	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 37

Formosa, China (25.0°N, 121.5°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	5.4					3.3	2.9
01	260	6.2					3.2	3.05
02	260	6.0					3.2	3.0
03	260	5.6					3.5	3.0
04	240	4.9					3.0	3.0
05	240	4.2					3.0	(3.2)
06	230	5.0					3.1	3.15
07	260	6.0	200	4.2	100	2.7	5.4	3.4
08	290	6.2	220	4.3	100	3.0	5.8	3.2
09	300	6.6	220	4.5	100	3.2	7.2	3.15
10	360	6.5	220	4.6	100	3.3	6.6	2.8
11	360	7.3	---	---	100	(3.4)	7.0	2.8
12	340	7.9	---	---	100	---	8.5	2.75
13	340	8.5	---	---	100	---	7.5	2.9
14	320	9.4	200	---	100	(3.4)	6.4	2.9
15	320	8.8	220	4.5	100	3.2	5.0	3.0
16	300	9.8	210	4.1	110	---	6.3	3.0
17	280	10.0	210	4.2	---	---	5.4	3.2
18	260	9.2	---	---			5.7	3.2
19	240	7.8					4.1	3.3
20	220	6.8					4.0	3.1
21	260	5.7					3.1	3.1
22	280	5.4					3.2	2.8
23	280	5.0					3.0	2.9

Time: 120.0°E.
Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.

Table 38

Kalgoorlie, W. Australia (30.3°S, 115.9°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.2						3.1
01	250	3.2						3.1
02	250	3.5						3.2
03	250	3.6						3.3
04	230	3.6						3.3
05	230	3.2						3.3
06	230	3.0						3.3
07	230	3.5						3.3
08	230	5.0	200	2.8		2.0		3.55
09	250	5.7	230	3.7		2.5	2.7	3.45
10	260	6.0	220	4.2		2.9	3.0	3.45
11	260	6.1	220	4.3		3.0	3.3	3.5
12	280	6.0	220	4.3		3.1	3.6	3.4
13	270	6.0	220	4.3		3.1	3.6	3.4
14	280	5.8	210	4.2		3.0	3.6	3.5
15	260	6.0	210	4.0		2.7	3.0	3.4
16	250	6.0	230	3.5		2.5	2.7	3.5
17	230	5.8	---	---		1.9	2.7	3.5
18	220	4.3					2.8	3.4
19	230	3.2					2.3	3.3
20	250	3.0						3.2
21	250	3.1						3.1
22	250	3.2						3.1
23	250	3.0						3.1

Time 120.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 45 seconds.

Table 39

Buenos Aires, Argentina (34.5°S, 58.5°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	2.6						3.0
01	300	2.7						3.0
02	290	2.7						3.0
03	280	2.6						3.2
04	260	2.6						3.35
05	260	2.4						3.4
06	310	2.0						3.25
07	240	3.6						3.5
08	230	5.0	---	---				3.5
09	250	5.5	230	---	(110)	(2.8)		3.5
10	250	6.0	210	---	---	---		3.5
11	260	6.3	200	4.2	---	---	3.6	3.5
12	260	6.5	200	4.1	110	(3.2)	4.0	3.5
13	260	7.0	200	---	100	3.1	3.8	3.4
14	270	7.0	200	---	---	---		3.4
15	250	7.2	230	---				3.45
16	230	6.6	---	---				3.5
17	220	5.9						3.5
18	220	4.8						3.5
19	250	4.4						3.4
20	250	4.2						3.25
21	260	3.4						3.4
22	290	3.1						3.1
23	320	2.8						3.0

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 40

Deception I. (63.0°S, 60.7°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	320	2.6						(3.0)
01	310	2.7						(3.1)
02	310	2.7						3.1
03	310	2.6						3.1
04	300	2.6						3.1
05	300	2.5						(3.2)
06	290	2.5						(3.3)
07	280	2.4						(3.4)
08	250	2.6						(3.5)
09	220	3.8					2.0	(3.7)
10	220	4.4					2.8	(3.7)
11	220	4.8					2.5	(3.7)
12	220	4.7					2.6	(3.8)
13	210	4.8					2.0	(3.8)
14	210	5.0					2.0	(3.8)
15	220	4.0						3.7
16	220	3.4						3.7
17	250	2.9						(3.5)
18	270	2.4						(3.4)
19	300	2.2					2.2	(3.3)
20	340	2.2						(3.05)
21	340	2.2						(3.0)
22	330	2.3						(3.0)
23	330	2.4						(3.0)

Time: 60.0°W.
Sweep: 1.5 Mc to 16.0 Mc in 15 minutes, manual operation.

Table 41

Talara, Peru (4.6°S, 81.3°W) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	5.2						3.3
01	240	4.6						3.2
02	250	4.0						3.1
03	260	4.2						3.0
04	260	3.4					<1.3	3.1
05	270	3.1					<1.2	3.0
06	300	2.8			---	---	<1.4	2.9
07	240	4.4			120	1.7	<2.2	3.15
08	---	5.8	220	---	110	2.5	3.2	3.0
09	---	6.5	210	---	110	2.8	3.9	2.6
10	390	6.8	200	4.3	110	3.1	4.6	2.4
11	450	7.0	200	4.5	110	3.3	4.4	2.3
12	440	7.1	200	4.5	110	3.3	4.4	2.2
13	440	7.3	200	4.5	110	3.4	4.0	2.2
14	410	7.4	200	4.4	110	3.2	3.2	2.3
15	400	7.6	200	4.2	110	3.1	4.3	2.4
16	---	8.0	210	---	110	2.8	3.4	2.5
17	---	8.0	220	---	110	2.4	3.6	2.5
18	250	8.1					<2.2	2.7
19	260	7.7					<2.6	2.8
20	280	7.0					<2.0	2.8
21	290	6.2					<1.7	2.8
22	260	6.7					<1.6	3.1
23	230	6.3					<1.5	3.3

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 42

Godhavn, Greenland (69.2°N, 53.5°W) May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	(3.6)	230	---	---	---	2.5	(3.1)
01	250	(3.6)	(220)	---	---	---	<1.3	3.1
02	260	(3.4)	230	---	---	---	2.9	3.0
03	270	(3.3)	220	---	120	(1.6)	1.8	3.05
04	(280)	(3.4)	220	(2.9)	120	1.7	2.4	(3.2)
05	---	(3.7)	200	(3.1)	110	1.9	3.5	(3.3)
06	---	(4.0)	200	(3.4)	110	(2.2)	3.6	(3.2)
07	---	(4.0)	210	(3.5)	110	(2.4)	3.7	(3.3)
08	(360)	(4.2)	210	(3.8)	100	2.6	3.7	3.05
09	(350)	4.6	210	3.9	100	2.7	3.1	3.1
10	370	4.8	210	4.0	100	2.9	3.3	2.95
11	370	4.8	210	4.0	100	2.9		3.0
12	370	(4.8)	200	4.0	100	2.9		3.0
13	370	5.0	210	4.0	100	2.8		3.0
14	(370)	(4.8)	210	4.0	100	2.8	3.6	(3.0)
15	(350)	(4.9)	210	4.0	100	2.7	4.5	(3.1)
16	(350)	(4.8)	210	3.9	100	2.6	6.0	(3.1)
17	340	(4.7)	220	3.7	110	2.5	5.0	(3.1)
18	350	(4.6)	220	3.5	110	2.3	4.3	3.0
19	320	(4.5)	230	(3.3)	110	2.1	3.7	(3.1)
20	290	(4.4)	240	---	110	1.8	3.1	(3.2)
21	250	4.2	240	---	120	1.7	2.1	3.2
22	250	(4.0)	240	---	130	(1.6)	1.7	(3.2)
23	250	(3.9)	240	---	140	1.3	2.1	3.2

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 43*

Inverness, Scotland (57.4°N, 4.2°W) May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.7						2.9
01	280	3.1					1.3	2.9
02	275	(2.8)					1.4	(2.8)
03	275	(2.6)					1.1	(3.0)
04	270	2.8			125	1.4	1.5	2.9
05	265	3.5	240	3.2	120	1.7		3.1
06	355	4.0	235	3.5	120	2.1	2.3	3.1
07	300	4.4	225	3.8	115	2.4	2.7	3.1
08	360	4.6	225	3.9	120	2.6	2.9	3.1
09	375	5.0	215	4.1	110	2.8	3.3	3.0
10	345	5.2	215	4.2	105	2.9	3.3	3.1
11	345	5.2	210	4.3	110	3.0	3.0	3.0
12	350	5.3	205	4.3	110	3.0		3.0
13	375	5.3	215	4.3	110	3.0		2.9
14	380	5.3	215	4.3	110	3.0	3.0	2.9
15	355	5.4	220	4.2	110	2.9		2.9
16	345	5.2	220	4.1	110	2.8	2.9	2.9
17	315	5.4	225	3.9	115	2.6	2.8	3.0
18	300	5.2	240	3.6	120	2.3	2.8	3.1
19	260	5.4	240	3.3	130	1.9	2.4	3.1
20	250	5.6				(1.6)	2.1	3.1
21	250	5.6						3.0
22	255	5.0						3.0
23	270	4.3						2.9

Time 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 44*

Slough, England (51.5°N, 0.6°W) May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	4.3					2.2	2.85
01	275	3.9					2.6	2.85
02	275	3.6					2.6	2.85
03	270	3.4					2.6	2.85
04	275	3.4			(135)	(1.3)	2.6	2.9
05	300	4.0	240	3.1	125	1.7	3.3	3.05
06	335	4.6	240	3.6	120	2.2	3.9	3.05
07	365	4.8	235	3.9	115	2.5	4.4	3.0
08	355	5.2	225	4.1	115	2.0	4.6	3.05
09	340	5.4	230	4.3	115	3.0	4.5	3.1
10	350	5.4	220	4.4	115	3.1	4.7	3.1
11	345	5.7	220	4.4	110	3.2	4.8	3.1
12	350	5.5	220	4.4	110	3.2	4.8	3.05
13	360	5.5	235	4.4	110	3.2	4.8	3.05
14	365	5.4	225	4.4	115	3.1	4.9	3.05
15	340	5.5	230	4.3	115	3.0	4.7	3.05
16	325	5.7	230	4.1	115	2.8	4.4	3.05
17	310	5.8	235	3.9	115	2.5	4.3	3.05
18	285	5.8	240	3.5	120	2.2	4.2	3.05
19	265	5.9	240	2.9	130	1.8	3.3	3.05
20	255	6.4					2.9	3.05
21	250	6.2					2.4	3.05
22	255	5.3					2.5	3.05
23	265	4.7					2.5	2.9

Time. 0.0°.
Sweep: 0.55 Mc to 16.5 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 45*

Singapore, British Malaya (1.3°N, 103.8°E) May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	245	5.2					3.0	(3.3)
01	240	4.4					3.8	(3.3)
02	230	3.4					3.4	(3.4)
03	235	2.9					3.3	---
04	240	2.5					3.2	---
05	255	2.0					3.6	---
06	255	3.7			160	1.4	3.0	3.2
07	(235)	6.3	235		120	2.3	4.1	3.1
08	295	8.0	215		120	2.8	5.6	2.9
09	310	9.1	210	4.4	110	3.1	5.8	2.8
10	330	10.0	205	4.5	110	3.3	6.6	2.6
11	340	10.2	205	4.6	(110)	3.5	6.0	2.4
12	340	9.9	200	4.6		3.5	6.0	2.4
13	335	9.4	200	4.5	110	3.4	5.6	2.5
14	335	9.5	200	4.5	(105)	3.3	5.4	2.6
15	315	9.5	210	4.4		3.1	4.9	2.6
16	280	9.8	215		110	2.8	5.6	2.8
17	255	9.7	225			2.2	5.7	2.9
18	245	9.5				(1.6)	4.4	3.0
19	240	9.0					3.6	3.1
20	230	8.0					3.5	3.4
21	215	6.6					3.6	3.5
22	215	4.7					3.9	(3.3)
23	235	4.9					3.9	(2.9)

Time 105.0°E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 46

Lulea, Sweden (65.6°N, 22.1°E) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	1.9					2.4	
01								
02	320	(1.8)						
03								
04	260	2.6			---	---		
05								
06	230	3.5	---	---	115	2.0	2.0	
07								
08	225	(3.7)	200	3.1	100	2.4		
09								
10	(240)	---	200	3.7	100	2.7		
11								
12	---	---	200	3.7	100	2.8		
13								
14	---	---	200	3.6	110	2.7		
15								
16	275	---	210	3.5	110	2.3		
17								
18	250	---	---	---	130	1.8	1.8	
19								
20	250	(2.5)						
21								
22	280	2.4						
23								

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 6 minutes, automatic operation.

Table 47*

Inverness, Scotland (57.4°N, 4.2°W) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	(2.2)						(2.9)
01	310	(2.2)						(2.8)
02	315	(2.0)						
03	310	(2.0)						
04	295	(1.8)						
05	265	(2.4)						(3.1)
06	240	3.3						3.2
07	265	3.8	225	3.6	120	2.1		3.2
08	345	4.1	220	3.6	115	2.3		(3.2)
09	355	4.3	210	3.9	110	2.6		(3.1)
10	370	4.5	210	4.0	110	2.7		(3.2)
11	375	4.7	210	4.0	110	2.8		3.1
12	360	4.8	210	4.1	110	2.9		3.2
13	360	4.9	215	4.1	110	2.8		3.1
14	355	4.9	215	4.0	110	2.0		3.0
15	340	4.9	210	4.0	110	2.7		3.1
16	325	5.0	220	3.8	110	2.5		3.1
17	305	5.2	230	3.6	115	2.3		3.2
18	265	5.2	240	(3.3)	125	1.9		3.2
19	255	5.0			(150)	(1.7)		3.1
20	255	4.0						3.1
21	255	4.3						3.0
22	285	3.4						3.0
23	300	(2.9)						2.9

Time 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 48*

Singapore, British Malaya (1.3°N, 103.8°E) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	6.0					3.0	3.1
01	225	5.4					3.0	3.3
02	215	4.2					2.9	3.3
03	235	3.2					2.9	3.2
04	240	2.4					3.0	3.3
05	240	2.1					3.0	---
06	250	3.6				1.2	3.0	3.1
07	245	6.6	235		125	2.2	3.4	3.2
08	280	8.3	215		120	2.8	5.2	3.0
09	300	9.6	210	4.4	110	3.1	5.6	2.0
10	320	9.7	205	4.5	110	3.3	5.8	2.4
11	350	10.1	200	4.6	110	3.4	5.7	2.3
12	345	9.7	200	4.6	110	3.5	5.7	2.3
13	330	9.9	200	4.6	110	3.4	5.5	2.5
14	315	10.2	200	4.5	110	3.3	5.2	2.6
15	295	10.2	205	(4.4)	110	3.1	4.0	2.6
16	(280)	10.2	210		110	2.8	4.2	2.7
17	(255)	10.2	235		115	2.3	5.6	2.8
18	250	10.4			155	1.7	3.3	2.8
19	260	10.1					3.2	2.9
20	260	10.0					3.0	2.9
21	235	10.0					3.3	3.2
22	215	8.7					3.0	3.3
23	210	6.8					2.9	3.2

Time: 105.0°E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 49*

Falkland Is. (51.7°S, 57.8°W) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	295	3.3					2.8	2.8
01	300	3.2					2.0	2.8
02	300	3.4					2.7	2.8
03	285	3.3					1.6	2.9
04	265	3.4					1.4	3.0
05	240	3.4					3.0	3.2
06	230	2.8			(180)	(1.2)	2.8	3.2
07	220	4.5			155	1.5	2.9	3.7
08	215	5.6	(225)		120	2.0	3.0	3.7
09	220	6.0	(230)		110	2.4	4.3	3.5
10	245	7.2	225	(3.8)	110	2.6	5.0	3.5
11	235	8.0	220	4.1	110	2.7	5.6	3.4
12	235	8.3	215	4.1	110	2.8	4.8	3.6
13	225	7.4	215	3.9	110	2.7	4.8	3.7
14	230	6.2	205	3.7	110	2.6	5.0	3.7
15	235	5.8	(225)		115	2.3	3.2	3.7
16	225	5.5			(135)	2.0	3.1	3.7
17	220	5.0				(1.6)	3.1	3.6
18	235	4.5					3.0	3.3
19	240	4.3					2.4	3.2
20	245	4.2					2.4	3.2
21	255	3.4					2.6	3.0
22	280	3.4					2.7	3.0
23	285	3.3					2.6	2.9

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes
*Average values except foF2 and fEs, which are median values.

Table 50*

Port Lockroy (64.8°S, 63.5°W) April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.2						2.6
01	300	3.1						2.8
02	295	3.0						2.8
03	285	2.9						2.8
04	270	2.8						2.9
05	260	2.8					1.2	2.9
06	245	2.8					2.0	3.0
07	240	3.2					2.1	3.2
08	225	4.6			(125)	1.6	1.8	3.4
09	230	5.7			(125)	1.8	3.2	3.4
10	230	5.8			(135)	1.9	3.2	3.7
11	240	6.3	235		120	2.2	3.2	3.7
12	235	6.2	225	2.8	115	2.2	3.2	3.4
13	225	6.0	210	3.0	110	2.3		3.7
14	230	6.1	235	3.0	125	2.2		3.7
15	230	5.3	230	2.7	125	2.1		3.7
16	245	4.8			(125)	1.8		3.4
17	260	5.3			(150)	1.4	1.4	3.4
18	250	4.8					2.4	3.2
19	255	4.6					1.4	3.0
20	265	4.4						3.0
21	275	3.9						3.0
22	275	3.3						2.9
23	300	3.2						2.8

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 51

Oelhi, India (28.6°N, 77.1°E) March 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	2.8						3.25
01	260	2.9						3.3
02	(280)	(2.3)						(3.25)
03								
04	260	2.6						3.4
05	240	3.0						3.6
06	240	4.0						3.6
07	230	5.5						3.7
08	240	6.4						3.6
09	250	7.1						3.5
10	280	7.9						3.25
11	260	8.8						3.4
12	250	10.0						3.5
13	260	10.4						3.4
14	260	9.4						3.4
15	240	8.7						3.6
16	240	>7.9						3.6
17	240	7.9						3.6
18	230	7.1						3.7
19	240	5.6						3.6
20	240	4.2						3.6
21	240	3.4						3.6
22	280	3.2						3.25
23	280	3.0						3.25

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 52

Ahmedabad, India (23.0°N, 72.6°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.0						2.9
01	300	2.9						3.05
02	270	3.0						3.2
03	250	2.8						3.35
04	250	2.5						3.35
05	250	2.1						3.2
06	260	2.8						3.3
07	235	5.3	230	(3.5)	120	1.9	3.6	3.5
08	255	6.2	225	4.0	110	2.5	3.8	3.4
09	275	7.4	215	4.3	110	2.9	3.8	3.3
10	290	9.2	215	4.4	110	3.1	3.8	3.15
11	285	10.8	210	4.5	107	3.3	3.6	3.2
12	280	12.3	200	4.5	107	3.4	3.7	3.15
13	290	12.4	210	4.5	107	3.3	3.7	3.15
14	280	13.0	225	4.5	107	3.2	3.6	3.15
15	270	12.6	225	4.3	110	3.0	3.6	3.3
16	250	11.9	230	4.1	110	2.8	3.3	3.3
17	240	11.2	230	3.7	115	2.3	3.3	3.4
18	225	10.2			---	---	2.2	3.45
19	210	8.8					1.8	3.4
20	210	6.5						3.3
21	225	4.6						3.2
22	280	3.3						2.95
23	275	3.2					2.0	2.95

Time: 75.0°E.
Sweep: 0.6 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 53

Calcutta, India (22.9°N, 88.5°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.1						3.0
01	260	3.8						3.1
02	240	3.7						3.1
03	230	3.2						3.4
04	240	2.6						3.2
05	240	2.2					2.0	(3.2)
06	250	2.9					2.1	3.1
07	230	5.8	---	---	110	2.1		(3.4)
08	260	6.7	210	4.0	110	2.6		(3.2)
09	300	8.0	210	4.4	100	3.0		3.0
10	300	10.0	200	4.5	100	3.2		2.9
11	310	11.0	200	4.5	100	3.4		(2.9)
12	290	11.2	200	4.6	100	3.4		(3.05)
13	300	11.5	190	4.6	100	3.4		(3.0)
14	280	11.5	200	4.5	100	3.3		(3.1)
15	280	11.3	220	4.4	100	3.1		(3.1)
16	250	11.2	220	4.1	100	2.8		(3.35)
17	240	11.1	220	3.9	100	2.3	3.3	(3.4)
18	230	11.0			---	---	3.0	(3.4)
19	220	10.3					3.4	(3.35)
20	200	8.9					1.8	(3.4)
21	210	6.8						(3.35)
22	250	4.4					2.4	3.0
23	260	4.2						3.1

Time: 90.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 54

Bombay, India (19.0°N, 73.0°E) March 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06:30	270	3.9						3.35
07	300	4.6						3.15
08:30	300	5.7						3.15
09	330	6.1						2.95
10	330	7.0						2.95
11	360	8.0						2.8
12	360	8.8						2.8
13	390	9.4						2.65
14	---	---						---
15	---	---						
16	390	9.8						2.65
17	360	9.1						2.8
18	360	8.0						2.8
19	330	7.1						2.95
20	300	6.0						3.15
21	300	5.2						3.15
22	300	4.3						3.15
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 55

Madras, India (13.0°N, 80.2°E) March 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	300	5.2						2.55
07	330	6.8						2.45
08	360	7.6						2.3
09	390	7.7						2.25
10	390	7.7						2.2
11	390	7.7						2.15
12	420	7.7						2.15
13	420	8.0						2.15
14	390	8.7						2.15
15	390	9.6						2.25
16	390	10.3						2.25
17	360	10.4						2.25
18	360	10.3						2.25
19	360	9.2						2.3
20	330	8.7						2.3
21	300	7.8						2.3
22								
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 56

Tiruchy, India (10.8°N, 78.8°E) March 1955

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	420	4.2						3.15
07	450	6.5						2.95
08	480	7.2						2.80
09	510	7.2						2.65
10	520	7.2						2.65
11	540	7.3						2.65
12	540	7.4						2.55
13	540	7.5						2.55
14	540	7.9						2.65
15	510	8.2						2.65
16	510	8.3						2.65
17	510	8.3						2.8
18	510	8.3						2.8
19	480	8.0						2.8
20	480	8.0						2.95
21	480	7.6						3.15
22								
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 57

Nairobi, Kenya (1.3°S, 36.8°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	200	---						---
01	200	5.0						(3.2)
02	250	3.6						3.0
03	(260)	3.4						3.0
04	250	3.4						3.1
05	<240	3.0						3.25
06	(240)	2.6					2.4	3.3
07	230	4.9	---	---			2.7	3.35
08	250	6.8	220	3.8	120	2.6	3.2	3.4
09	280	7.8	220	4.3	110	3.0		3.2
10	300	7.9	200	4.4	110	3.2	3.4	3.0
11	320	9.0	---	4.6	110	---	3.6	2.9
12	320	10.2	---	---	110	---	3.8	2.9
13	320	10.6	---	---	110	---		2.9
14	320	10.8	---	---	110	---		2.9
15	320	10.8	200	4.4	110	---	4.4	3.0
16	290	10.6	220	---	110	---	3.8	3.1
17	300	10.0	230	4.0	120	2.8	3.8	2.9
18	(280)	>10.1	240	---	---	---	3.3	(2.9)
19	270	>10.2					2.6	(3.0)
20	270	---						---
21	250	---						---
22	220	---						---
23	210	---						---

Time: 45.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 58*

Falkland Is. (51.7°S, 57.0°W) March, 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	4.0					2.2	2.7
01	310	3.9					2.6	2.7
02	310	3.8					2.6	2.7
03	290	3.8					2.4	2.8
04	275	3.7					2.0	3.0
05	265	3.3						3.0
06	235	4.1			170	(1.5)	2.2	3.4
07	235	4.6			125	1.9	3.1	3.6
08	275	5.0	235		115	2.4	3.6	3.5
09	275	5.6	230		110	2.7	5.5	3.3
10	290	5.8		(4.3)	105	2.8	5.1	3.2
11	280	6.6	220	4.3	105	2.9	5.1	3.2
12	270	7.2	220	4.3	105	3.0	5.6	3.3
13	265	6.8	220	4.3	105	2.9	5.2	3.3
14	260	6.4	225	4.1	105	2.9	5.7	3.5
15	260	6.1	225	4.0	105	2.7	5.3	3.5
16	250	5.5	230	3.8	(120)	2.4	3.2	3.5
17	240	5.2	230	(3.2)	125	2.1	2.9	3.4
18	235	5.2			(140)		2.8	3.3
19	250	5.2					2.8	3.1
20	265	5.2					2.5	3.1
21	255	5.0					2.2	3.1
22	265	4.5					2.4	2.9
23	295	4.2					2.6	2.8

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 59*

Port Lockroy (64.8°S, 63.5°W) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	275	3.9					2.0	2.8
01	280	3.6					1.9	2.8
02	275	3.2					1.9	2.7
03	275	3.1					1.3	2.8
04	270	3.0					1.8	2.8
05	270	2.9					1.3	2.9
06	245	3.2			(145)	1.5	1.5	3.2
07	240	3.8			125	1.7	1.3	3.4
08	235	4.6			110	2.0	3.4	3.4
09	235	4.5			105	2.2	3.5	3.6
10	255	4.8	220	3.7	105	2.4	4.0	3.4
11	270	5.5	220	3.6	100	2.5	3.9	3.4
12	270	5.4	215	3.8	100	2.6	3.7	3.4
13	265	5.4	210	3.7	100	2.6	3.5	3.5
14	255	5.4	215	3.7	100	2.5		3.5
15	245	5.2	215	3.5	100	2.4	2.9	3.6
16	240	5.1	215		105	2.2		3.5
17	235	5.0	225		110	1.9	1.5	3.5
18	240	5.1			125	1.7	1.8	3.4
19	245	5.1					1.3	3.1
20	260	5.4					1.1	3.0
21	250	5.2						3.0
22	255	4.6					1.2	3.0
23	265	4.0					1.7	2.8

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 60*

Port Lockroy (64.8°S, 63.5°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	265	5.8					1.9	2.8
01	270	5.3					2.2	2.9
02	265	5.0					2.5	2.8
03	265	4.7					1.2	2.9
04	270	4.4						2.9
05	280	4.3	250	2.8	120	1.8	1.2	2.9
06	295	4.4	240	3.1	110	2.0	3.1	3.0
07	290	4.6	235	3.5	100	2.2	3.2	3.1
08	320	4.4	230	3.7	100	2.5	3.9	3.2
09	305	4.6	230	3.8	100	2.7	4.8	3.2
10	315	4.7	220	4.0	100	2.8	4.7	3.2
11	325	4.9	220	4.1	100	2.8	5.2	3.2
12	330	5.0	215	4.1	100	2.8	5.1	3.1
13	310	5.1	210	4.1	100	2.8	5.2	3.2
14	310	5.2	215	4.1	100	2.8	5.1	3.2
15	300	5.1	215	4.0	100	2.8	4.5	3.3
16	295	5.0	215	3.9	100	2.7	3.8	3.2
17	285	5.1	220	3.8	105	2.4	3.4	3.3
18	270	5.1	230	3.7	105	2.2	3.8	3.2
19	260	5.3	245		115	1.8	3.7	3.2
20	260	5.6					3.1	3.0
21	275	6.0					3.2	2.9
22	270	6.2					3.2	2.9
23	270	6.0					2.0	2.9

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 61

Lulea, Sweden (65.6°N, 22.1°E) June 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	3.7					2.0	
01								
02	230	3.5	---	---	---	E	2.5	
03								
04	325	3.9	225	3.0	120	2.0	3.4	
05								
06	360	4.2	210	3.5	105	2.4	3.4	
07								
08	360	4.5	200	3.8	100	2.6	3.8	
09								
10	365	4.5	205	4.0	100	2.8	3.8	
11								
12	350	4.6	200	4.0	100	2.9	3.8	
13								
14	355	4.4	200	3.9	100	2.8	3.5	
15								
16	350	4.3	205	3.6	105	2.6	3.6	
17								
18	295	4.2	215	3.3	110	2.2	4.0	
19								
20	250	4.2	230	2.8	130	1.8	3.1	
21								
22	245	(3.8)						
23								

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 6 minutes, automatic operation.

Table 62

Lulea, Sweden (65.6°N, 22.1°E) May 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	(3.2)					2.2	
01								
02	250	3.2	---	---			2.3	
03								
04	335	3.5	210	3.0	125	1.9	3.2	
05								
06	380	3.9	215	3.4	105	2.3	3.1	
07								
08	400	4.2	200	3.7	105	2.6	3.2	
09								
10	370	4.4	210	3.9	100	2.9		
11								
12	400	4.4	200	3.9	100	3.0	3.5	
13								
14	380	4.3	200	3.9	100	2.8	3.3	
15								
16	350	4.3	210	3.6	105	2.5	3.1	
17								
18	290	4.2	230	3.2	110	2.1	3.4	
19								
20	245	4.0	---	---	---	---	2.9	
21								
22	250	(3.6)					2.0	
23								

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 6 minutes, automatic operation.

Table 63

Lulea, Sweden (65.6°N, 22.1°E) April 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	---					2.1	
01								
02	300	(2.4)					1.9	
03								
04	285	2.6			---	---		
05								
06	240	3.5	215	2.7	125	2.1		
07								
08	385	4.0	215	3.5	115	2.5		
09								
10	385	4.4	205	3.7	115	2.8		
11								
12	355	4.5	210	3.9	110	2.8		
13								
14	345	4.5	215	3.7	110	2.7		
15								
16	325	4.4	230	3.6	120	2.4		
17								
18	250	4.1	250	---	130	1.9		
19								
20	250	(3.1)						
21								
22	290	---					2.5	
23								

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 6 minutes, automatic operation.

(Revision of table 11, p. 14, F132)

Table 63a*

Formosa, China (25.0°N, 121.5°E) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00		6.6						
01								
02		6.0						
03	260	(6.0)						
04								
05	260							
06		5.6					4.0	
07								
08							6.0	
09								
10								
11								
12		8.0						
13							5.2	
14			240					
15								
16					100	3.1	5.7	
17			210	4.3				
18							5.6	
19		7.8						
20								
21		6.6					3.3	
22		6.6						
23								

Time: 120.0°E.
Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.
*See Erratum 3, p.8, F135.

TABLE 64

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D C

Form adopted June 1946

IONOSPHERIC DATA

h' F2 (Characteristic), Km (Unit), October (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E. J. W., J. J. S., J. W. P., L. F. M.

Calculated by J. W. P.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(300)S	(310)S	300	(300)S	< 340S	F	260	230	L	250	240	310	280	270	260	(250)L	260	230	220	220	240	250	270	250
2	270	270	260	290	(300)S	(320)S	250	240	250	280	250	280	280	280	280	270	240	230	220	220	250	260	270	270
3	260	280	270	260	250	(300)S	260	L	250	250	260	270	300	290	270	260	250	230	220	220	250	250	270	270
4	280	270	280	280	270	(260)S	240	230	240	260	250	260	270	280	270	260	250	230	220	220	250	280	260	260
5	270	270	250	250	250	270	250	230	250	250	260	250	270	300	270	280	250	250	220	220	240	240	270	270
6	270	270	260	(230)S	240	270	290	240	240	260	260	280	290	280	270	260	250	240	220	220	250	260	270	280
7	280	270	270	260	270	(270)S	260	230	250	250	280	280	240	280	270	(260)L	250	240	220	230	240	250	260	(270)S
8	280	290	280	300	300	(290)S	280	240	250	(270)L	280	300	300	290	270	270	250	240	220	230	250	260	270	280
9	280	280	270	260	250	260	240	240	240	260	(280)L	(250)L	290	260	(250)L	270	240	230	220	230	240	260	250	260
10	280	C	C	260	250	280	260	240	[240]C	270	270	300	300	290	[280]C	260	240	230	220	230	240	290	260	260
11	280	280	260	270	250	300	280	240	240	250	260	280	280	300	270	270	240	240	220	220	240	260	260	280
12	280	280	270	260	250	270	250	230	230	230	250	(290)L	260	(270)L	270	250	250	230	220	230	250	250	270	270
13	270	280	280	270	260	260	250	230	230	250	270	250	260	270	270	250	240	230	210	230	240	250	(270)A	270
14	290	250	240	240	250	270	250	220	240	240	250	250	270	270	260	250	240	220	200S F	220	240	250	260	270
15	240	270	270	260	260	240	240	230	230	240	240	260	280	270	270	260	230	220	220	250	280	(290)S	280	270
16	250	240	250	270	270	270	250	220	230	240	250	250	260	(250)L	260	240	230	220	200	240	250	270	270	270
17	260	270	260	240	240	(290)S	260	230	240	240	270	260	270	260	250	250	240	220H	200	240	250	270	270	260
18	270	270	280	270	260	(250)S	250	230	230	230	260	240	280	280	270	250	230	220H	200	230	230	260	270	280
19	280	270	260	250	240	240	(250)S	220AH	230H	230	240	300	280	270	270	260	240	220	210	220	230	260	260	270
20	290	280	280	250	250	(280)S	(270)S	230	240	240	240	250	280	250	250	240	230	220	210	220	240	250	240	260
21	260	270	290	240	250	250	250	230	240	260	270	270	270	270	270	250	240	230	220	240	240	250	260	260
22	250	270	280	260	250	270	(270)S	230	240	250	260	270	280	260	260	240	230	210	240	260	260	270	270	270
23	270	270	250	260	240	230	220	220	230	250	(280)L	260	280	250	(250)L	260	250	220	210	230	230	250	250	250
24	260	270	260	260	250	230	240	220	230	230	240	230H	270	260	250	240	230	210	210	230	240	270	310	300
25	290	280	240	< 300S	230	300	310	270	L	610	500	430	340H	350	300	290	270	240	230	240	230	290	290	290
26	(320)S	300	310F	(400)F	380F	(350)S	320F	260	270	290	270	270	260	280	270	270	230	210	210	(240)A	210	270	270	300
27	280	260	280	(300)S	(330)A	(330)S	(300)A	240	240	(250)L	240	250	270	270	250	250	240	220	220	230	240	240	240	260
28	270	270	260	250	250	260	(290)S	220	230	250	(230)L	240	260	250	L	(240)L	230	220	210	220	230	230	260	250
29	(300)A	(300)A	(280)A	230	240	260	(270)S	220	220	L	250	(250)L	(240)L	260	250	250	220	220	200	240	250	(280)A	[260]C	250
30	260	240	250	240	250	250	250	230	220	240	L	240	270	280	260	250	240	210	210	230	240	250	270	280
31	300	300	230	250	250	290	270	230	(240)L	250	250	240	270	250	250	240	240	220	210	230	220	220	250	250
Median	280	270	270	260	250	270	260	230	240	250	260	260	280	270	270	250	240	220	220	230	240	260	270	270
Count	31	30	30	30	30	30	31	30	24	30	30	31	31	31	30	31	31	31	31	31	31	31	31	31

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO

TABLE 65

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

fo F2 (Characteristic), Mc (Unit), October (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.J.S., J.W.P., L.F.M.

Calculated by: E.J.W., J.W.P.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(28)$^{F}_{S}$	(26)$^{F}_{S}$	(23)^{F}	(24)^{F}	(16)$^{J}_{F}$	F^{B}	31	54	67	76	7.6	7.6	8.4	9.7	86	78	8.6	84	74	58	(50)$^{F}_{S}$	47	(44)$^{F}_{S}$	41^{F}
2	38^{F}	36^{F}	34^{F}	28^{F}	(24)^{F}	(24)$^{F}_{S}$	34^{F}	52	65	70	7.2	78	86	90	90	96	86	78	74	62	(52)$^{F}_{S}$	48	(44)$^{F}_{S}$	44
3	42^{F}	42	37	36	30	26^{F}	35	56	67	77	8.0	78	84	90	94	90	86	80	73	61^{F}	54^{F}	(46)$^{F}_{S}$	(43)$^{J}_{S}$	(39)$^{J}_{S}$
4	44	42	39	37	32	(24)$^{P}_{S}$	39	55	74	87	90	92	90	90	91	90	(92)$^{P}_{S}$	88	76	62	53	49	48	45^{F}
5	(42)$^{J}_{S}$	(40)$^{J}_{F}$	(40)$^{J}_{F}$	(36)$^{J}_{F}$	26^{F}	(27)^{F}	37^{F}	62	74	85	92	94	12	100	101	100	100	94	90	80	71	62	52	49
6	49	47	48	44	36^{F}	25^{F}	36	70	84	90	100	92	10.5	102	106	100	10.1	(98)^{S}	80$^{J}_{S}$	60	53	49	(47)^{S}	48
7	(47)^{S}	41	40	36)$^{F}_{S}$	(30)$^{F}_{S}$	(24)$^{F}_{S}$	(35)$^{P}_{S}$	58	78	77	87	86^{F}	96	98	100	92	92	89	79	64	54	47	48	42
8	42	41^{F}	40^{F}	(33)$^{F}_{S}$	(34)$^{F}_{S}$	36^{F}	(40)$^{F}_{S}$	56	62	62^{F}	70	76	84	88	90	88	84	76	66	56	53	46	44	44
9	42	42	40^{F}	40^{F}	38^{F}	35^{F}	42^{F}	62	71	76	77	82	92	88	86	92	90	84	74	64	(56)^{S}	52	49	44^{F}
10	43^{F}	C	C	(43)$^{F}_{S}$	36)^{F}	32^{F}	37	(60)^{S}	[70]^{C}	80	82	90	90	92	[94]^{C}	96	90	82	74	66	60	52	48	46^{F}
11	42^{F}	44	41	39	31^{F}	22^{F}	33^{F}	60	76	73^{F}	81	88	96	95	100	93	92	85	78	66	57	47^{F}	43^{F}	44^{F}
12	42^{F}	42^{F}	39^{F}	(37)$^{J}_{S}$	(36)$^{J}_{S}$	28^{F}	(35)^{F}	60	72	75	75	86	93	90	96	90	91	83	70)^{S}	58	(52)$^{P}_{S}$	50$^{J}_{S}$	48)$^{J}_{S}$	48)$^{J}_{S}$
13	(48)$^{J}_{F}$	37^{F}	(42)$^{J}_{F}$	45)$^{J}_{F}$	38)$^{J}_{F}$	(39)^{F}	(41)$^{J}_{F}$	60^{F}	70	75	83	86	90	93	96	94	92	88	70	(60)$^{F}_{S}$	54)$^{J}_{F}$	(45)$^{P}_{S}$	46)$^{J}_{S}$	43
14	(43)$^{P}_{F}$	(43)$^{P}_{F}$	41^{F}	34)^{F}	31)$^{P}_{F}$	(29)^{F}	38	63	82	80	83	84	90	90	94	95	92	85	64^{F}	54^{F}	49^{F}	(43)$^{F}_{S}$	42^{F}	(37)$^{F}_{S}$
15	(40)$^{F}_{S}$	(37)$^{F}_{S}$	(36)$^{F}_{S}$	(35)$^{F}_{S}$	(35)^{F}	(33)^{F}	(37)^{F}	58	68	74	74	76^{F}	82	85	86	92	84	78	64	48	44	43	41	42
16	41	38	32	30	29	32	37	62	72	78	80	80	90	86	88	85	85	76	62	51	46	42	41	41
17	40	37	37	34	26	23	29	56	68	72	80	84	84	90	87	88	84	76^{H}	63	48	42	39	38	36
18	35	32	32	30	29	27	31	57	71	70	71	76	75	83	80	90	86	80^{H}	57	45	38	33	32	31
19	31	32	31	31	30	27	29	52^{H}	67$^{V}_{H}$	74	72	77	76	83	87	90	86	81	63	49	38	36	34	32
20	32	32	32	33	30	26	30	58	71	72	76	75	78	77	(89)$^{P}_{S}$	87	84	78	63	49	45	44	39	37
21	34	32	32	33	33	30	31	53	62	68	63	72	74	74	82	84	75	71	58	52	46	43	39)$^{J}_{F}$	(39)$^{J}_{F}$
22	(37)$^{J}_{F}$	37^{F}	36^{F}	(37)$^{F}_{S}$	F	F	(27)$^{P}_{F}$	50	62	72	69	75	80	83	84	80	74	55	49)$^{P}_{S}$	(48)$^{P}_{S}$	(40)$^{J}_{F}$	(42)$^{P}_{F}$	(42)$^{J}_{F}$	(42)$^{P}_{F}$
23	41	(43)$^{P}_{S}$	43	42	41	36	33	52	62	70	71	80	76	77^{F}	76	82	86	80	(64)^{S}	(58)$^{P}_{S}$	49	43	43	38
24	37	37	36	36	38	36	35	56	63	72	78	72^{H}	80	82	87	81	80	77	60	52	50	44	37	39
25	41	41	38	(22)$^{F}_{S}$	(34)$^{J}_{F}$	33^{F}	34^{F}	37^{F}	45^{F}	40^{F}	47	53^{F}	03$^{F}_{H}$	05	06	07	63	67	60	57	40	37	36	26^{F}
26	(27)$^{J}_{F}$	(27)$^{F}_{S}$	(26)$^{J}_{F}$	F	F^{S}	(20)^{F}	21^{F}	43^{F}	51	62^{F}	70	72	80	88	90	92	94	79^{F}	74	62	45	35^{F}	35^{F}	35^{F}
27	(40)$^{J}_{F}$	39)$^{J}_{F}$	27^{F}	(27)$^{F}_{S}$	20)$^{A}_{F}$	(19)^{A}	(22)^{A}	52	75	76	78	74^{F}	84	93	92	90	84	80	62	64	50	48	(41)^{F}	38)^{F}
28	(36)$^{F}_{S}$	(35)$^{F}_{S}$	32)$^{F}_{S}$	32)$^{F}_{S}$	29)$^{F}_{S}$	(25)$^{F}_{S}$	23)$^{P}_{S}$	52^{F}	70	75	84)^{F}	86	104	96	92	90	86	74	64	57	50	42	37)$^{F}_{S}$	37^{F}
29	(37)$^{F}_{S}$	(37)$^{F}_{S}$	42)$^{F}_{S}$	(40)$^{J}_{F}$	(33)$^{F}_{S}$	(26)$^{F}_{S}$	(26)$^{F}_{S}$	(56)$^{F}_{S}$	66^{F}	78^{F}	84	88	93	100	96	98	88	84	63^{F}	52^{F}	(49)$^{F}_{S}$	43	[42]^{C}	41
30	(38)$^{F}_{S}$	(38)$^{F}_{S}$	(35)$^{F}_{S}$	(36)$^{F}_{S}$	31)$^{F}_{S}$	(26)$^{F}_{S}$	(31)$^{F}_{S}$	58	70	84	90	90	92	98	100	102	102	(96)^{S}	70	58^{F}	48^{F}	45^{F}	39^{F}	40
31	38^{F}	(39)^{F}	38^{F}	(33)^{F}	31^{F}	29^{F}	36^{F}	63	82	102	107	96	110	110	106	103	(94)^{S}	87	83	74	66	(50)^{S}	44	(37)$^{F}_{S}$
Median	40	38	37	(36)	31	27	34	56	70	75	78	82	86	90	90	90	86	80	66	58	50	45	42	41
Count	31	30	30	30	29	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

TABLE 66

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D C

Form adopted June 1946

IONOSPHERIC DATA

fo F2 (Characteristic), Mc (Unit), October (Month), 1955

National Bureau of Standards (Institution)

Observed at Washington, D. C.

Scaled by E.J.W., R.C.M., J.W.P.

Lat 38.7°N, Long 77.1°W 75°W Mean Time

Calculated by E.J.W., J.W.W.

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	(2.6)$^{J}_{F}$	2.6^{F}	(2.3)^{F}	(2.4)^{F}	F^{B}	F^{B}	4.2	5.6	7.4	7.8	6.6	8.0	9.2	9.0	8.2	8.2	7.6	7.6	6.8	(5.4)$^{J}_{S}$	4.8^{F}	4.5$^{F}_{S}$	4.3	4.0
2	3.8^{F}	3.5	(3.1)$^{F}_{S}$	2.6^{F}	(2.4)^{F}	(2.6)$^{F}_{S}$	4.7	6.2	6.6	7.2	7.6	8.2	8.8	9.4	9.0	9.2	8.0	8.0	(6.8)^{S}	(5.4)$^{F}_{S}$	5.0	4.8	(4.6)$^{F}_{S}$	(4.4)$^{F}_{S}$
3	4.2	4.0	3.7^{F}	3.4	2.7^{F}	2.6^{F}	4.8	6.4	7.1	8.0	8.2	8.0	8.8	9.6	9.4	8.6	8.6	7.6	6.8	5.6^{F}	(4.9)$^{F}_{S}$	(4.0)$^{F}_{S}$	(4.2)$^{J}_{S}$	(3.9)$^{J}_{S}$
4	4.3	4.0	3.3^{F}	3.4	2.9	2.3	5.1	7.1	8.0	9.0	7.2	7.0	8.9	(7.2)^{F}	9.0	(7.2)^{F}	9.0	8.2	6.8	5.7	5.3	(4.9)$^{J}_{S}$	(4.8)$^{J}_{S}$	4.4^{F}
5	(3.9)$^{J}_{F}$	(4.2)$^{J}_{F}$	(3.9)$^{J}_{F}$	2.9^{F}	2.6^{F}	2.7^{F}	5.3	6.9	8.0	9.2	9.7	9.6	9.0	10.3	10.1	9.7	9.0	7.9	8.6	7.5	6.4	5.6	4.9	4.9
6	4.8	4.8	4.6	4.1	2.9^{F}	2.4	5.6	8.0	8.2	8.9	9.2	9.8	10.4	10.3	10.1	10.1	(10.0)$^{P}_{S}$	(9.3)^{S}	7.1	(5.4)^{S}	5.0	4.7	4.8	4.6
7	[4.5]$^{F}_{S}$	4.0	3.6	(3.3)$^{F}_{S}$	(2.8)$^{F}_{S}$	(2.4)$^{F}_{S}$	4.9	7.1	7.8	8.2	9.0	9.2	9.6	9.9	9.7	9.2	9.2	8.5	7.2	5.9	5.0	4.7	4.4	4.2
8	4.1	4.0^{F}	(3.6)$^{J}_{F}$	(3.3)$^{F}_{F}$	(3.2)$^{F}_{S}$	3.7^{F}	5.0	5.8	6.1	6.7	7.0	7.9	8.7	9.0	9.0	8.4	8.0	7.4	6.2	5.4	4.9	4.5	4.3	4.2
9	4.2	4.2	4.1^{F}	3.9^{F}	3.7^{F}	3.5^{F}	4.9^{F}	(6.2)^{S}	7.6	7.8	7.6	8.8	9.4	8.5	9.2	9.3	8.4	7.6	6.8	(5.9)^{S}	5.2	5.2	(4.6)$^{F}_{S}$	4.2^{F}
10	4.3	C	C	(4.0)$^{F}_{S}$	3.5^{F}	(3.2)$^{F}_{S}$	4.8	6.7	7.4	8.0	8.6	9.0	8.6	9.4	9.4	9.6	8.6	[7.7]^{C}	6.7	6.4	5.8	4.7	4.6^{F}	4.3^{F}
11	4.3	4.4	4.1	3.7	(2.4)$^{J}_{S}$	2.2^{F}	4.4	6.3	7.4	7.8	8.0	9.0	9.4	9.8	9.8	9.4	8.9	8.2	7.2	6.2	5.4^{F}	4.3^{F}	4.1^{F}	4.4^{F}
12	(4.0)$^{J}_{S}$	(4.2)$^{J}_{F}$	3.8^{F}	(3.4)$^{J}_{S}$	(2.7)^{F}	2.6^{F}	5.0	6.3^{F}	7.3	7.6	7.8	7.3	8.6	9.2	9.4	9.0	9.0	8.0	6.0	5.2	5.0$^{J}_{S}$	(5.0)$^{J}_{S}$	(4.8)$^{J}_{S}$	4.8$^{J}_{F}$
13	(4.9)$^{J}_{F}$	3.7^{F}	(4.4)$^{J}_{S}$	(4.0)$^{J}_{F}$	(3.7)$^{J}_{F}$	(4.0)$^{J}_{F}$	5.2	6.8^{F}	7.4	7.4^{F}	8.2	8.5	9.2	9.4	9.6	9.3	9.2	8.0	(6.0)^{F}	(5.8)$^{F}_{S}$	(4.8)^{S}	(4.4)$^{P}_{S}$	(4.4)$^{J}_{S}$	4.3^{F}
14	[4.3]^{F}	(4.1)$^{J}_{F}$	3.6^{F}	(3.2)^{F}	(3.0)$^{F}_{F}$	(2.8)^{F}	(5.2)^{S}	7.0	8.3	8.2	8.4	8.8	9.0	9.2	9.6	9.4	8.8	7.4	5.8^{F}	(5.0)$^{F}_{S}$	(4.3)$^{F}_{S}$	(4.3)$^{F}_{S}$	(3.7)$^{F}_{S}$	(4.1)$^{F}_{S}$
15	(3.7)$^{F}_{S}$	(3.6)$^{F}_{S}$	(3.5)$^{F}_{S}$	(3.4)$^{F}_{S}$	(3.6)^{F}	(3.3)^{F}	4.9	6.4	(7.0)$^{F}_{S}$	7.2	7.2	8.0	8.4	8.5	8.6	9.0	8.2	7.2	5.2	4.7	4.2	4.3	4.2^{F}	4.1
16	4.1	3.4	3.1	3.0	3.1	3.2	4.8^{F}	6.8	7.4	7.8	8.5	8.8	8.6	8.6	8.6	8.6	7.1	7.4	5.2	4.8	4.2	4.1	4.1	4.1
17	3.7	3.7	3.5	2.9	2.4	2.3	4.3	5.8	6.9	7.2	8.0	8.6	9.0	8.9	9.2	8.2	8.2	7.0	4.8	4.5	3.9	3.8	3.8	3.5
18	3.3	3.1	3.0	2.9	2.9	2.7	4.6	6.8	7.6	6.4	7.0	7.5	7.6	8.6	9.0	9.0	8.3	7.0	4.6	4.3	3.3	3.2	3.1	3.1
19	3.1	3.2	3.1	3.0	2.9	2.4	4.4	5.9	7.2	7.2	7.1	7.6	7.7	8.3	9.0	9.0	8.0	7.2	5.2	4.2	3.6	3.5	3.3	3.2
20	3.4	3.2	3.1	3.3	3.1	2.7	4.5	6.8	7.4	7.8	7.5	7.5	9.2	9.1	9.0	8.8	8.0	6.8	5.4	4.8	4.4	4.1	3.7	3.4
21	3.3	3.2	3.3	3.3	3.3	2.9	4.3	5.8	6.6	6.6	6.9	7.2	7.5	7.8	8.4	7.6	(7.3)^{S}	6.4	5.5	(5.3)^{S}	(4.2)$^{J}_{S}$	4.0	(3.9)$^{J}_{S}$	(3.7)$^{J}_{F}$
22	(3.6)$^{J}_{S}$	3.5^{F}	(3.8)$^{F}_{S}$	(3.6)$^{F}_{S}$	F	F	4.0^{F}	(5.8)^{S}	6.6	7.3	7.2	7.8	8.4	8.4	8.3	7.5	6.6	5.1	(4.9)^{S}	(4.4)$^{J}_{S}$	(4.2)$^{J}_{F}$	(4.1)$^{J}_{F}$	(4.2)$^{F}_{F}$	(3.9)$^{J}_{F}$
23	(4.2)$^{J}_{S}$	4.4	4.3	4.2	3.8	3.5	4.3	5.8	6.6	7.0	7.8	7.4	8.0	7.7	7.9	8.6	8.4	7.2	6.2	(5.5)$^{J}_{S}$	4.6	4.1	3.8	3.7
24	3.6	3.6	3.5	3.8	3.8	3.3	4.6	6.3	7.2	7.4	8.0$^{J}_{S}$	7.6^{H}	8.4	8.5	8.2	8.0	8.2	6.6	5.6	5.0	4.5	3.7	3.6	3.9^{F}
25	3.8$^{F}_{S}$	3.9	2.9^{F}	F	(3.3)$^{J}_{F}$	2.5^{F}	3.6^{F}	3.7^{F}	4.5^{F}	4.9	4.9	6.0	6.3	6.5	6.8	6.8	6.8	6.7	5.6	4.8	3.7	3.7	3.0^{F}	(3.6)$^{F}_{S}$
26	[2.1]$^{F}_{S}$	(2.8)$^{F}_{F}$	F	F	(2.1)^{F}	(1.7)^{F}	3.2^{F}	4.6	5.6	6.7^{F}	7.0^{Z}	7.6	8.4	8.8	9.0	9.4	9.0	7.8	7.0^{F}	A	3.6^{F}	3.5^{F}	3.5^{F}	(3.5)$^{J}_{F}$
27	3.9$^{J}_{F}$	(3.7)$^{J}_{F}$	(2.7)$^{F}_{S}$	(2.8)$^{J}_{F}$	(1.9)^{F}	[2.0]^{A}	4.1^{F}	6.4	7.4	8.3	7.6	8.4	9.4	9.4	9.0	8.4	8.0	7.4	6.4	5.8	5.0	4.4^{F}	(3.7)^{F}	(3.5)^{S}
28	(3.6)$^{F}_{S}$	(3.4)$^{F}_{S}$	(3.2)$^{F}_{S}$	(3.0)$^{F}_{S}$	(2.8)$^{F}_{S}$	(2.0)$^{F}_{S}$	(4.2)$^{F}_{S}$	7.0	7.4	8.2	8.8	9.6	10.2	9.6	9.2	8.8	8.4	7.5	5.8	5.5	4.8	(3.8)$^{F}_{S}$	(3.8)$^{F}_{S}$	(3.6)$^{F}_{S}$
29	(3.9)$^{F}_{S}$	(3.8)$^{F}_{S}$	(4.2)$^{F}_{S}$	(3.5)$^{F}_{S}$	(3.0)$^{F}_{S}$	(2.5)$^{F}_{S}$	(3.8)$^{F}_{S}$	(6.2)$^{F}_{S}$	(7.2)$^{F}_{S}$	7.8	8.4	9.0	9.8	9.6	9.8	9.2	8.4	7.5	5.6^{F}	(5.0)$^{F}_{S}$	4.5^{F}	[4.2]^{C}	4.0	(3.8)$^{F}_{S}$
30	(3.9)$^{F}_{S}$	(3.6)$^{F}_{S}$	(3.3)$^{F}_{S}$	(3.1)$^{F}_{S}$	(2.8)$^{F}_{S}$	(2.8)$^{F}_{S}$	4.5^{F}	7.2	7.3	8.4	8.9	9.0	9.5	10.0	10.0	10.0	9.8	8.5	6.2	5.1	4.5^{F}	(3.9)^{F}	3.9^{F}	3.9
31	(3.7)^{F}	(3.9)^{F}	3.5^{F}	3.1^{F}	2.8^{F}	3.1^{F}	4.6	6.9	9.0	9.8	9.9	10.0	11.4	10.7	10.8	9.9	9.6	9.2	7.7	(7.2)^{S}	6.2	4.4	(3.8)$^{F}_{S}$	(3.3)$^{F}_{S}$
Median	3.9	3.7	3.5	3.3	2.9	2.7	4.6	6.4	7.4	7.8	8.0	8.5	8.9	9.2	9.0	9.0	8.4	7.5	6.2	5.4	4.8	4.3	4.1	3.9
Count	31	30	29	29	29	29	31	31	31	31	31	31	31	31	31	31	31	31	31	30	31	31	31	31

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

TABLE 67

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h' F1 (Characteristic), Km (Unit), October (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.J.S., J.W.P.

Calculated by: J.W.W., K.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								Q	(230)^{A}	220	200	180	180^{H}	240	230	220	220	230					
2								230	220	200	140^{H}	220	210	240	210	220	230	Q						
3								240	230	240	210	190	170^{H}	230	210^{H}	230	220	230	Q					
4								Q	230	230	210	200^{H}	200	210	220	240	220	Q						
5								Q	220	220	210	200^{H}	200	200	240	240	230	Q						
6								Q	230	(220)^{A}	210^{H}	200^{H}	200^{H}	210	210^{H}	220	240	230						
7								D	220	210^{H}	210	220	190^{H}	210^{H}	220^{H}	220	230	Q						
8								Q	220	200^{H}	210	200^{H}	190^{H}	220^{H}	220	220	240	Q						
9								A	Q	220	210	190	220	200^{H}	210^{H}	210^{H}	220	Q						
10								230	[220]^{C}	210	200	200	190^{H}	190^{H}	[220]^{C}	230^{H}	230	Q						
11								Q	220	210	200	190	180	200^{H}	220	220	210	230						
12								Q	220	200	200	180	180^{H}	200	210^{H}	230^{H}	240	Q						
13								Q	210	200	190^{H}	200^{H}	200^{H}	210	220	230	240	Q						
14								Q	Q	210	190	190	190^{H}	210	210	210	230	Q						
15								Q	230	200	190	180	190	220	210^{H}	220	230	Q						
16								Q	220	210	200^{H}	190^{H}	200	220	210	210	220							
17								Q	230	220	200	200	190	190^{H}	230	240	220	Q						
18								Q	220	210	200	200	190^{H}	220^{H}	230^{H}	230	220	Q						
19								Q	Q	220	210	210^{H}	190^{H}	230	230	240	240	Q						
20								Q	220	210	210	180	230	220	220	220	220	Q						
21								220	210^{H}	210	200	210	210	200	(200)^{A}	230	230	Q						
22								Q	230	220	210	210	210	230	240	240	Q							
23								Q	220	(210)^{A}	[210]^{A}	210	(210)^{A}	220	210^{H}	220	230	Q						
24								Q	A	200^{H}	200	200	180^{H}	220	200	230	240	Q						
25								Q	250	240	210^{H}	210^{H}	240	230^{H}	[230]^{A}	240	240	Q						
26								Q	240	200	190	(180)^{H}	210	200^{H}	200	220	230	Q						
27								Q	230	(210)^{A}	200	180	220	210	220	230	Q	Q						
28								Q	Q	210	200	190^{H}	200^{H}	200	210	220	Q	Q						
29								Q	Q	200	190	190^{H}	(210)^{A}	220	(220)^{A}	(220)^{A}	Q	Q						
30								Q	220	210	200	200	190^{H}	220	230	230	Q	Q						
31								Q	220	210	210	210	210	210	210	220	230^{H}	Q						
Median								—	220	210	200	200	200	210	220	220	230	—						
Count								4	25	31	31	31	31	31	31	31	26	4						

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

TABLE 68

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

fo F1 (Characteristic), Mc (Unit), October (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E.J.W., J.J.S., J.W.P.

Calculated by: J.W.W., K.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								Q	L	(4.3)L	L	5.1	(4.8)L H	(4.6)L	L	L	L	L						
2								L	L	L	L H	(4.8)L	4.8	(4.8)L	(4.5)L	L	L	Q						
3								L	L	L	L	L	4.9 H	4.7	(4.4)L H	L	L	L	G					
4								Q	L	L	L	L H	L	L	4.3	L	L	G						
5								Q	L	L	(4.2)L	(4.7)L H	L	(4.8)L	L	L	L	Q						
6								Q	L	L	(4.5) H	4.7 H	L H	L	(4.5) H	L	L	L						
7								Q	L	L H	(5.0)L	(5.0)L	L H	L H	L H	L	L	Q						
8								Q	L	L H	(4.2)L	4.7 H	(4.7)L H	L H	L	L	L	G						
9								A	G	L	L	L	5.0	L H	L H	L H	L	G						
10								L	L	L	L	L	L H	(4.6)L H	L	L H	L	Q						
11								Q	L	L	4.3	L	(4.5)L	4.9 H	L	L	L	L						
12								G	L	L	4.2	L	L H	L	L H	L H	L	G						
13								Q	L	L	L H	L H	L H	L	L	L	L	Q						
14								Q	Q	L	L	L	4.5 H	L	L	L	L	Q						
15								Q	L	L	L	L	L	L	L H	L	L	Q						
16								G	L	L	L H	L H	L	L	L	3.9	L	G						
17								Q	L	L	L	L	(4.4)L	L H	L	L	L	Q						
18								G	L	L	L	L	L H	4.4 H	L H	L	L	G						
19								Q	Q	L	L	4.9 H	4.4 H	L	L	L	L	Q						
20								G	L	L	(4.3)L	L	L	L	L	L	L	G						
21								L	L H	L	(4.2)L	(4.3)L	(4.3)L	(4.1)L	L H	L	L	G						
22								Q	L	L	L	(4.3)L	(4.2)L	L	L	L	Q	Q						
23								Q	L	L	L	L	L	L	L H	L	L	Q						
24								Q	L	L H	L	L	L H	L	L	L	L	G						
25								G	L	4.0	4.1 H	4.2 H	4.4	4.5 H	[4.3]?	L	L	G						
26								G	L	4.1	4.2	4.2	(4.3)L	L H	L	L	L	Q						
27								G	L	L	L	L	L	L	L	L	Q	Q						
28								Q	Q	L	L	L H	L H	L	L	L	Q	Q						
29								Q	Q	L	L	L H	L	L	L	L	Q	Q						
30								Q	L	L	L	L	L H	L	L	L	Q	Q						
31								Q	L	L	L	L	L	L	L	L	L H	Q						
Median								—	—	—	(4.2)	4.7	(4.5)	(4.6)	(4.4)	—	—	—						
Count								0	0	3	10	11	13	9	5		0	0						

Sweep 1.0 Mc to 25.0 Mc in 1.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 69

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

IONOSPHERIC DATA

h' E (Characteristic), Km (Unit), October (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.J.S., J.W.P., L.F.M.

Calculated by: E.J.W., K.B., J.W.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								110	110	110	110	100	100	100	100	100^{H}	(100)^{A}	(130)^{A}						
2								120	110	100	100	100	100	100	110	110	110	(120)^{S}						
3								120	110	110	100	110	110	100^{H}	100^{H}	110^{H}	110	120	S					
4								120^{H}	110^{H}	110^{H}	100	110	(110)^{B}	110	110	110	110	120						
5								110^{H}	(110)^{A}	(110)^{A}	110	(100)^{A}	(100)^{A}	100	(100)^{A}	100^{H}	100^{H}	120						
6								120	110	110	110	(110)^{B}	100^{H}	(110)$^{B}_{H}$	(110)$^{B}_{H}$	110^{H}	110^{H}	(120)^{S}						
7								(120)$^{S}_{H}$	110^{H}	100^{H}	110^{H}	(110)^{B}	110	110	(110)^{A}	(100)^{A}	(120)^{A}	(130)$^{A}_{H}$						
8								(120)^{S}	110	110	110^{H}	110^{H}	110	110	110	110	120	(120)^{S}						
9								A	(110)^{A}	(110)^{A}	(110)^{A}	(110)^{A}	110^{H}	100^{H}	100	110	(120)^{A}	(110)^{S}						
10								S	[110]^{C}	110^{H}	110	110	(110)^{A}	110	[110]^{C}	110^{H}	120	(120)^{S}						
11								(130)$^{S}_{H}$	110^{H}	110	100^{H}	100^{H}	100^{H}	(110)$^{A}_{H}$	100^{H}	110	120	A						
12								130^{H}	110	110	110	110	100	110^{H}	110	110^{H}	120	(130)^{S}						
13								(130)^{S}	110	(110)^{A}	100	(110)$^{A}_{H}$	(110)$^{A}_{H}$	(110)^{A}	100	(100)^{A}	(120)^{A}	S						
14								(120)^{S}	110^{H}	110	100	100	100	100	100	110	110	S						
15								S	100	100	110	100	A^{H}	A	100	A	A	S						
16								(120)^{S}	110	(110)^{A}	110	110^{H}	100	(110)^{A}	110	110	110	S						
17								A	(110)^{A}	110^{H}	110^{H}	110^{H}	100	(100)$^{A}_{H}$	(120)$^{A}_{H}$	110^{H}	120	S						
18								(120)$^{S}_{H}$	110^{H}	110	110	100^{H}	100^{H}	110	110^{H}	110	110	S						
19								S	110	110	110	110	100	100	100^{H}	110^{H}	120^{H}	S						
20								120^{H}	120^{H}	110	100	100	110	(110)^{A}	110	A	A	S						
21								(120)^{S}	(110)^{A}	110	110	110	(110)^{A}	110	110^{H}	110	120^{H}	S						
22								S	110^{H}	110	110^{H}	(110)^{A}	100	110	(110)^{S}	120	S							
23								(130)$^{S}_{H}$	110^{H}	100^{H}	100^{H}	100	100	100	100	100^{H}	110^{H}	S						
24								(120)$^{S}_{H}$	[110]^{A}	100	(100)^{A}	(100)^{A}	100	100	100	110	110	S						
25								(120)^{S}	(100)^{A}	(100)^{A}	100	100^{H}	100	100	[100]^{B}	110	110	S						
26								(100)^{A}	(100)^{A}	100	100	(100)^{A}	100	100	(100)^{A}	100^{H}	(100)^{A}	S						
27								S	A	(120)^{A}	A	A	(100)^{A}	100	100	100	100^{H}	S						
28								(110)^{A}	110	100	100	100	110	100	110	100	100	S						
29								S	110	100	100	100	(100)^{A}	(100)^{A}	(100)^{A}	(100)^{A}	(100)^{A}	S						
30								S	(110)^{A}	110	110	110	100	100	(120)^{A}	120	100	(100)^{A}						
31								110	110	(110)^{A}	(100)^{A}	110	100	100	110	120	120	100						
Median								(120)	110	110	110	110	100	100	110	110	110	(120)	—					
Count								2.2	30	31	30	30	30	30	31	29	28	13	0					

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

CPO 836048

TABLE 70

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

IONOSPHERIC DATA

fo E (Characteristic), Mc (Unit), October (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W — 75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E.J.W., J.J.S., J.W.P., L.F.M.

Calculated by E.J.W., J.W.P.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								A	A	3.0	(3.2)^{A}	3.3	3.3	3.2	3.1	2.8^{H}	[2.4]^{A}	2.1						
2								2.1	2.6	(2.9)^{A}	A	A	A	3.2	(3.2)^{A}	3.1	2.7	2.0						
3								A	A	A	A	A	3.2	3.3^{H}	3.1^{H}	2.9^{H}	2.6	(2.1)^{A}	<1.6^{S}						
4								2.0^{H}	2.7^{H}	A^{H}	A	A	A	3.4	3.3	3.1	2.6	A						
5								2.1^{H}	A	A	A	A	A	3.3	[3.2]^{A}	3.0^{H}	2.6^{H}	1.9						
6								A	(2.5)^{A}	[2.8]^{A}	(3.0)^{A}	[3.1]^{A}	3.2^{H}	3.2^{H}	3.1^{H}	3.0^{H}	2.6^{H}	2.0						
7								(2.0)^{H}	2.6^{H}	3.0^{H}	(3.1)^{H}	(3.2)^{A}	A	A	(3.2)^{A}	(2.9)^{A}	(2.6)^{S}	(1.9)^{H}						
8								(1.8)^{S}	2.5	2.8	3.1^{H}	3.2^{H}	(3.2)^{A}	3.0	3.0	2.9	2.5	A						
9								A	A	A	A	A	3.3^{H}	3.2^{H}	3.1	2.9	2.4	1.8						
10								A	[2.5]^{C}	2.9^{H}	[3.0]^{A}	3.1	[3.2]^{S}	(3.2)^{P}	[3.0]^{C}	2.8^{H}	2.6	A						
11								2.0^{H}	2.5^{H}	2.9	3.0^{H}	[3.0$^{S}_{H}$]	3.2^{H}	3.1^{H}	3.1^{H}	(2.8)^{A}	(2.3)^{P}	A						
12								2.0^{H}	2.3	[2.8]^{A}	(3.2)^{A}	3.3	3.3	3.3^{H}	3.2	3.0^{H}	2.5	A						
13								1.8	2.5	(2.8)^{A}	(3.0)^{A}	3.1^{H}	3.2^{H}	3.2	A	A	A	A						
14								(1.9)^{A}	(2.5)^{H}	A	A	3.1	3.2	3.2	3.1	2.9	(2.5)^{S}	A						
15								A	A	A	A	A	(3.2)^{H}	A	A	A	A	<1.6^{S}						
16								1.9	A	A	A	3.0^{H}	3.1	3.1	3.0	2.7	2.3	<1.6^{S}						
17								A	A	2.7^{H}	2.9^{H}	2.9^{H}	3.0	3.0^{H}	2.9^{H}	2.7^{H}	2.2	<1.6^{S}						
18								1.7^{H}	2.4^{H}	2.8^{F}	2.9	3.0^{H}	3.0^{H}	3.0	3.0^{H}	2.8	2.1	<1.6^{S}						
19								<1.6^{S}	2.7	2.8	3.0	3.1	3.2	3.2	3.0^{H}	2.7^{H}	2.4^{H}	<1.6^{S}						
20								1.9^{H}	(2.4)$^{A}_{H}$	(2.5)^{A}	A	A	3.1	(2.9)^{A}	A	A	A	<1.6^{S}						
21								A	A	A	A	A	A	A	(2.9)^{H}	(2.6)^{S}	2.3^{H}	<1.6^{S}						
22								<1.6^{S}	(2.3)$^{S}_{H}$	2.5	(2.7)^{H}	3.0	3.1	3.0	2.7	2.3	<1.6^{S}							
23								(1.8)^{H}	(2.5)^{H}	2.7^{H}	2.9^{H}	A	A	3.1	(3.0)^{A}	(2.7)^{H}	(2.3)^{H}	<1.5^{S}						
24								(1.9)^{H}	A	A	A	A	3.1	(3.1)^{P}	3.0	2.7	(2.4)^{P}	<1.6^{S}						
25								A	A	A	2.9	3.0^{H}	3.1	(3.1)^{A}	[3.0]^{B}	2.8	2.1	<1.6^{S}						
26								A	A	2.7	[2.9]^{A}	(3.1)^{A}	3.1^{F}	3.1	2.9	A^{H}	A	<1.6^{S}						
27								<1.6^{S}	A	(2.7)^{A}	A	A	3.1	3.1	3.1	2.8	(2.2)$^{S}_{H}$	<1.6^{S}						
28								A	A	A	3.1	3.1	3.2	3.2	3.1	2.8	(2.4)^{A}	<1.6^{S}						
29								<1.6^{S}	2.5	A	A	A	A	A	A	A	A	A						
30								A	A	A	A	A	A	3.2	3.1	2.7	A	A						
31								(1.8)^{S}	A	A	A	(3.3)^{P}	[3.3]^{A}	3.3	3.2	2.9	S	S						
Median								1.9	2.5	2.8	3.0	3.1	3.2	3.2	3.1	2.8	2.4	<1.6	—					
Count								19	16	17	16	18	23	27	27	26	24	20	1					

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 71

Central Radio Propogation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

Es (Characteristic), Mc & Km (Unit) October (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W 75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.J.S., J.W.P., L.F.M.

Calculated by: E.J.W., J.W.P.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	<1.6 S	<1.6 S	<1.6 S	2.7 100	2.4 120	4.5 100 M	2.5 120	2.2 130	4.3 110	G	3.1 110	G	G	G	G	G	2.9 100 M	2.9 100	2.9 100	2.7 100	2.2 100	<1.6 S	<1.6 S	<1.6 S
2	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.1 110	<1.6 S	<1.6 S	G	G	4.8 120	4.8Y 100	3.2 110	3.4 120	G	4.2 120	3.3 120	3.3 120	2.2 120	1.8 110	2.7 110	3.0 110	2.7 110	<1.6 S	<1.6 S
3	2.1 120	<1.6 S	<1.2 S	<1.3 S	<1.2 S	<1.6 S	<1.6 S	4.5 120	3.8 110	5.4 110	4.8 110	4.0 110	G	G	3.2 130	G	G	3.0 130	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
4	<1.6 S	<1.6 S	<1.6 S	3.0 120	2.2 130	<1.6 S	G	G	3.7 130	3.2 120	3.7 130	4.2 120	3.5 120	G	3.4 130	4.1 120	3.9 120	3.1 120	7.0 110 H	3.2 110	5.0 110	5.7 110	2.2 110	<1.6 S
5	<1.6 S	<1.6 S	<1.3 S	<1.3 S	2.2 110	<1.6 S	<1.6 S	3.0 140	4.0 110 H	3.5 110	3.6 110	4.2 100	3.5 100 H	G	4.1 100	G	G	G	<1.6 S	<1.6 S	3.5 110	3.1 120	<1.6 S	<1.6 S
6	2.2 110	<1.6 S	<1.6 S	<1.4 S	<1.6 S	<1.6 S	<1.6 S	2.9 120	3.6 110	4.5 110	3.4 110	4.1Y 120	G	G	G	G	G	G	<1.6 S	3.5Y 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S
7	<1.6 S	<1.6 S	<1.6 S	2.2Y 110	2.6 110	2.8 100	2.2 100	G	G	G	3.3 120	4.3 120	4.1Y 110	4.2Y 110	3.7Y 100	3.8 100	2.8Y 100	2.6Y 110	<1.6 S	2.9 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S
8	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.2Y 110	<1.6 S	G	G	6.6Y 120	G	G	3.3 120	3.2 120	G	G	3.8 120	4.4Y 120	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
9	<1.6 S	2.2 110	2.1 110	<1.6 S	<1.2 S	<1.6 S	<1.6 S	4.8Y 110	4.9 H 120	6.8Y 110 M	4.7 H 110	4.0 H 110	G	3.4 130	G	3.0 130	2.6 H 100	G	2.2 100	2.7 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S
10	<1.6 S	C	C	<1.4 S	<1.2 S	<1.55 S	<1.6 S	2.0 120	C	2.9 110	2.8 110	G	3.0 110	G	C	G	G	2.2 H 120	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
11	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.4 100	3.6 110	3.8 H 100	3.1Y 100	G	3.6 120	G	G	G	2.6 H 100	G	3.7 120	3.4 100	2.2 100 H	2.8 100	<1.6 S	3.1 110	4.6 110	2.7 110	2.7 100
12	2.2 100	<1.6 S	<1.6 S	<1.3 S	<1.4 S	<1.6 S	<1.6 S	G	2.7 130	3.7Y 120	3.2 120	G	G	G	G	4.2Y 100	3.1Y 100	2.1 130	4.6 100	2.3 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S
13	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.3 S	<1.6 S	7.2Y 120	G	4.7 H 110	3.1 H 110	3.4 110	2.2 100	2.6 100	3.5Y 100	4.1Y 120	4.2 110	3.3Y 120	1.8 110	2.3Y 100	2.2Y 100	2.9Y 110	<1.6 S	3.9Y 110	3.0 110
14	3.4 120	<1.6 S	<1.3 S	<1.6 S	<1.5 S	3.7Y 110	2.3 110	3.0Y 110	2.9 140	3.2 110	3.6 110	G	G	3.4 130	3.3 130	G	G	1.9 120	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.1 100	<1.6 S
15	2.1 100	<1.6 S	<1.5 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.1 H 110	3.7 110	6.6 110	4.2 110	3.2 110	3.0 H 100	3.2 H 100	3.1 120	2.9 H 100	2.6 H 120	30Y 110	<1.6 S	2.9 110	4.2 110	4.2 110	2.9 110	2.7 100
16	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	6.6 100 H	3.2 120	4.9 90	3.6Y 110	4.0Y 100	G	2.1 100	G	4.6 110	(3.6) S 120	3.2 120	2.5 100	2.7 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S
17	<1.6 S	2.5 100	<1.6 S	<1.2 S	2.1 100	<1.6 S	<1.6 S	1.9 120	(3.6) S 120	3.3 H 110	G	G	G	3.1 100	3.9 100	3.2 H 100	G	2.8 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
18	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.6 S	<1.6 S	<1.6 S	3.6 140	4.6 H 110	4.3 110	4.0 100	4.8 100	G	3.6 120	3.5 130	G	4.5Y 100	<1.6 S	3.3 110	2.2 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S
19	<1.6 S	<1.6 S	<1.6 S	2.1 100	<1.6 S	4.3 100	3.1 120	G	3.4 120	3.5 H 110	3.4 110	G	3.5 100	G	G	3.4 100	3.2 120	2.8 120	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.2 110
20	2.2 110	<1.6 S	2.2 100	<1.6 S	3.8 100	<1.6 S	<1.9 S	4.5Y 120	5.4 H 100	3.5 110	3.2 H 100	3.1 120	G	4.8 100	5.0 110	4.5 100	5.0 H 100	(4.3) S 100 M	2.3 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
21	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.5 120	7.0 120	<1.6 S	1.9 120 H	3.2 120	4.5Y 110	3.0 110	4.1Y 120	4.2Y 110	3.7Y 120	G	G	G	2.1 130	<1.7 S	<1.6 S	1.6 S	<1.6 S	<1.6 S	3.0Y 100
22	2.2 100	2.3 100	2.3 100	2.2 100	3.6Y 110	<1.6 S	<1.6 S	1.7 130	G	1.9 120	3.4Y 110	4.9Y 110	G	G	G	G	1.9 130	<1.6 S	1.6 S	3.1 120	3.1 120	2.1 120	<1.6 S	2.2 110
23	<1.6 S	<1.6 S	<1.6 S	<1.4 S	<1.6 S	2.9Y 130	<1.6 S	4.3Y 120	11.5Y 110	4.2 120	4.7 120	4.5 100	4.9Y 110 H	G	3.3 120	4.6Y 100	G	1.9 130	<1.6 S	2.9 120	3.7 120	3.5 100	2.9 110	<1.6 S
24	2.2 110	4.6Y 120	8.2Y 100	2.2 100 H	2.9Y 110	<1.6 S	3.0Y 110	3.0Y 100	4.1 110	3.7 110	4.0 100	6.0 100	3.3 100	4.0 H 100	4.8 100	3.9 100 H	G	3.3 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
25	<1.6 S	<1.6 S	2.2 110	2.2 100	2.4Y 100	<1.6 S	<1.6 S	8.0Y 110	4.2 H 100	4.0 100	3.0 120	G	6.6Y 100	3.8 100	<3.7 B	2.9 120	2.3 120	1.8 140	2.8 100	2.2 100	2.1 100	2.1 100	<1.6 S	2.4 150
26	3.0Y 120	<1.6 S	2.4Y 100	2.6 90	3.6 130	3.0Y 120	2.7 120	3.7 100	4.3 100	3.8 100	4.6 100	4.8 100	4.3 100	4.6 H 100	4.5 100	3.5 F 110	4.0 F 100	3.0 F 130	<1.6 S	8.4 110	7.4 100	2.9 120	4.9 110	3.1 110
27	4.2 120	<1.6 S	<1.6 S	6.7 F 110	4.8 110	8.0 110	11.4 100	12.0 100	9.0 H 100	5.0 100	4.6 100	3.7 100	6.9Y 90	G	4.9Y 100	3.1 130	3.8 120	2.0 H 100	2.3 H 100	2.7Y 100	<1.6 S	<1.6 S	2.2 120	<1.6 S
28	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.9 120	<1.6 S	<1.6 S	8.2 120	2.9 120	3.2 120	G	15.0 100	2.4 100	G	3.3 H 100	3.1 120	2.7 110	G	<1.6 S	<1.6 S	2.9 100	2.9 110	<1.6 S	3.5 100
29	4.3 100	4.2 100	4.7 100	4.3 H 100	4.4 H 100	<1.6 S	<1.6 S	G	2.8 100	3.7 110	3.1 H 100	4.6 H 100	4.6 100	4.9 100	4.8 100	4.8 100	4.8 90	(4.3) S 100	<1.6 S	<1.6 S	3.3 100	4.7 100	C	2.1 100
30	4.8 100	2.2 110	(1.9) S 100	<1.3 S	<1.6 S	<1.3 S	<1.4 S	4.8 110	2.6 110	10.0Y 100	4.1 130	4.5 110 F	6.8 100	8.2 H 100	3.0 100	2.8Y 100	3.2Y 100	4.6Y 100	4.6 H 100	2.1 100	(3.4) S 100	4.1 H 110	<1.6 S	3.2 100
31	3.8 100	3.1 100	<1.5 S	2.9 100	<1.2 S	<1.6 S	<1.6 S	G	3.8 110	4.9Y 110	4.3 110	G	3.2 120	G	G	G	G	G	2.8Y 100	1.7 100	<1.6 S	2.8Y 110	4.4 100	<1.6 S
Median	<1.6	<1.6	<1.6	<1.6	2.1	<1.6	<1.6	3.0	3.6	3.7	3.4	4.0	**	**	3.3	3.1	2.8	2.2	<1.6	2.2	<1.6	<1.6	<1.6	<1.6
Count	31	30	30	31	31	31	31	31	30	31	31	31	31	31	29	31	31	31	31	31	31	31	30	31

** MEDIAN fEs LESS THAN MEDIAN foE, OR LESS THAN LOWER FREQUENCY LIMIT OF RECORDER

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 936048

TABLE 72

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D C

Form adopted June 1946

IONOSPHERIC DATA

(M1500) F2 (Characteristic), ____ (Unit), October (Month), 1955

National Bureau of Standards (Institution)

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

Scaled by E.J.W., J.J.S., J.W.P., L.F.M.

Calculated by: E.J.W.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(1.8)$^{F}_{S}$	(1.8)$^{F}_{S}$	(1.9)^{F}	(2.0)^{F}	J^{F}	F^{B}	2.2	2.3	2.2	2.4	2.4	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.3	2.1	1.9)$^{F}_{S}$	2.0	1.9)$^{F}_{S}$	2.0^{F}
2	2.0^{F}	2.0^{F}	1.9^{F}	1.9^{F}	1.9)^{F}	1.9)$^{F}_{S}$	2.2^{F}	2.4	2.4	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.0)$^{F}_{S}$	2.0	1.9)$^{F}_{S}$	1.9
3	2.0^{F}	1.9	1.9	2.0	2.1	1.9^{F}	2.2	2.3	2.2	2.2	2.2	2.2	2.1	2.0	2.1	2.2	2.2	2.3	2.2	2.2^{F}	2.1^{F}	(2.1)$^{F}_{S}$	J^{S}	J^{S}
4	1.9	1.9	1.9	1.9	2.0	(2.2)$^{D}_{S}$	2.2	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1	(2.2)$^{D}_{S}$	2.3	2.2	2.1	2.2	2.0	2.0	2.1^{F}
5	J^{S}	J^{F}	J^{F}	J^{F}	2.4^{F}	(2.0)^{F}	2.2^{F}	2.4	2.3	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9
6	2.0	1.8	2.0	2.1	2.2^{F}	2.1^{F}	2.0	2.3	2.3	2.4	2.3	2.1	2.0	2.1	2.0	2.1	2.1	(2.2)^{S}	2.3$^{J}_{S}$	2.0	2.0	2.0	1.9)^{S}	1.9
7	(1.9)^{S}	1.9	2.0	(2.0)$^{F}_{S}$	(2.1)$^{F}_{S}$	(2.2)$^{F}_{S}$	(2.2)$^{D}_{S}$	2.3	2.4	2.3	2.3	2.1^{F}	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.0	1.9	2.0	1.9
8	1.9	1.9^{F}	2.0^{F}	1.9)$^{F}_{S}$	1.9)$^{F}_{S}$	1.8^{F}	(2.1)$^{F}_{S}$	2.3	2.2	2.2^{F}	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.2	2.2	2.0	2.0	2.0	1.9	1.9
9	1.9	1.9	2.0^{F}	2.0^{F}	2.0^{F}	2.1^{F}	2.2^{F}	2.4	2.3	2.3	2.2	2.1	2.1	2.2	2.0	2.1	2.2	2.3	2.2	2.4	2.1)^{S}	2.0	2.0	2.0^{F}
10	1.9^{F}	C	C	2.0)$^{F}_{S}$	1.9)^{F}	1.9^{F}	2.1	(2.4)^{S}	C	2.3	2.3	2.1	2.1	2.1	C	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0^{F}
11	1.9^{F}	1.9	1.9	1.9	2.2^{F}	2.1^{F}	1.9^{F}	2.3	2.4	2.2^{F}	2.2	2.1	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.0	2.0	2.1^{F}	2.0^{F}	2.0^{F}
12	1.9^{F}	2.0^{F}	2.1^{F}	J^{S}	J^{S}	1.9^{F}	2.1)^{F}	2.3	2.4	2.4	2.3	2.1	2.3	2.0	2.2	2.2	2.2	2.2	(2.2)^{S}	2.1	(2.0)$^{D}_{S}$	2.0$^{J}_{S}$	J^{S}	J^{S}
13	J^{F}	2.0^{F}	J^{F}	J^{F}	T^{F}	1.9)^{F}	J^{F}	2.4^{F}	2.3	2.4	2.3	2.3	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.1)$^{F}_{S}$	J^{F}	2.2)$^{D}_{S}$	J^{S}	1.9
14	(2.1)$^{D}_{F}$	(2.2)$^{D}_{F}$	2.2^{F}	(2.1)^{F}	(2.1)$^{D}_{F}$	(2.1)^{F}	2.2	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.3^{F}	2.1^{F}	2.2^{F}	2.0)$^{F}_{S}$	2.0^{F}	(2.1)$^{F}_{S}$
15	(2.1)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.1)^{F}	(2.1)^{F}	(2.1)^{F}	2.4	2.4	2.5	2.5	2.1^{F}	2.1	2.2	2.2	2.2	2.3	2.4	2.3	2.1	2.1	1.9	2.0	2.0
16	2.0	2.2	2.1	2.0	2.0	2.0	2.1	2.3	2.5	2.4	2.3	2.4	2.2	2.1	2.3	2.3	2.4	2.3	2.5	2.1	2.1	1.9	1.9	2.0
17	2.0	2.0	2.1	2.2	2.2	2.1	2.1	2.4	2.5	2.3	2.2	2.2	2.2	2.2	2.1	2.3	2.2	2.3^{H}	2.3	2.2	2.0	2.0	1.9	2.0
18	2.0	2.1	2.0	1.9	2.1	2.0	2.1	2.4	2.5	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.4^{H}	2.4	2.1	2.2	2.0	2.0	2.0
19	2.0	2.1	2.1	2.1	2.2	2.3	2.0	2.3^{H}	2.4$^{V}_{H}$	2.4	2.4	2.2	2.1	2.2	2.2	2.2	2.3	2.4	2.2	2.2	2.1	2.1	2.1	2.0
20	2.0	2.0	2.0	2.2	2.2	2.0	2.0	2.4	2.4	2.5	2.5	2.4	2.1	2.3	(2.2)$^{D}_{S}$	2.2	2.3	2.5	2.3	2.2	2.1	2.1	2.1	2.0
21	2.0	2.0	1.9	1.9	2.2	2.1	2.2	2.3	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.4	2.2	2.1	2.2	2.1	J^{F}	J^{F}
22	(2.1)$^{J}_{F}$	2.0^{F}	2.1^{F}	(2.1)$^{F}_{S}$	F	F	(2.1)$^{D}_{F}$	2.3	2.4	2.4	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	(2.1)$^{D}_{S}$	(2.1)$^{D}_{S}$	J^{F}	(2.0)$^{D}_{F}$	J^{F}	(2.0)$^{D}_{F}$
23	2.0	(2.1)$^{D}_{S}$	2.0	2.0	2.2	2.1	2.3	2.4	2.4	2.4	2.2	2.3	2.2	2.2^{F}	2.2	2.2	2.2	2.3	(2.2)^{S}	(2.2)$^{F}_{S}$	2.2	2.2	2.1	2.1
24	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.5	2.4	2.4	2.4	2.2^{H}	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	1.9	1.9	1.8
25	1.9	1.9	2.2	2.0)$^{F}_{S}$	J^{F}	1.8^{F}	1.9^{F}	2.1^{F}	2.0^{F}	1.5^{F}	1.7	1.8^{F}	1.9$^{F}_{H}$	1.9	1.9	1.9	2.1	2.1	2.1	2.2	2.0	1.9	1.9	2.2^{F}
26	J^{F}	(1.9)$^{F}_{S}$	J^{F}	F	F^{S}	(2.0)^{F}	2.1^{F}	2.2^{F}	2.2	2.1^{F}	2.2	2.2	2.2	2.1	2.0	2.0	2.3	2.2^{F}	2.2	2.2	2.3	2.1^{F}	2.0^{F}	2.0^{F}
27	J^{F}	J^{F}	F	(2.0)$^{F}_{S}$	2.0)$^{Q}_{S}$	(2.0)^{Q}	(2.2)^{A}	2.3	2.3	2.3	2.4	2.2^{F}	2.2	2.2	2.3	2.3	2.3	2.2	2.3	2.1	2.2	2.2	2.2)^{F}	(2.1)^{F}
28	(2.0)$^{F}_{S}$	(1.9)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.1)$^{F}_{S}$	(2.1)$^{D}_{S}$	2.4^{F}	2.3	2.3	(2.1)^{F}	2.3	2.2	2.2	2.1	2.2	2.4	2.3	2.3	2.1	2.2	2.2	(2.0)$^{F}_{S}$	2.0^{F}
29	1.9)$^{F}_{S}$	(2.0)$^{F}_{S}$	(1.9)$^{F}_{S}$	J^{F}	2.2)$^{F}_{S}$	2.1)$^{F}_{S}$	(1.9)$^{F}_{S}$	(2.5)$^{F}_{S}$	2.4^{F}	2.2^{F}	2.4	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.3^{F}	2.1^{F}	(2.1)$^{F}_{S}$	2.1	C	2.1
30	(2.1)$^{F}_{S}$	2.1)$^{F}_{S}$	2.0)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.0)$^{F}_{S}$	(2.1)$^{F}_{S}$	(2.0)$^{F}_{S}$	2.4	2.5	2.4	2.3	2.3	2.2	2.1	2.1	2.2	2.2	(2.3)^{S}	2.3	2.2^{F}	2.3^{F}	2.1^{F}	2.0^{F}	1.9
31	1.9^{F}	(1.9)^{F}	2.1^{F}	(2.0)^{F}	2.0^{F}	2.0^{F}	2.0^{F}	2.4	2.3	2.3	2.3	2.1	2.1	2.1	2.1	2.1	(2.1)^{S}	2.1	2.3	2.0	2.3	(2.4)^{S}	2.2	(2.0)$^{F}_{S}$
Median	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.4	2.4	2.3	2.3	2.2	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.1	2.1	2.0	2.0	2.0
Count	27	28	26	26	25	29	30	31	30	31	31	31	31	31	30	31	31	31	31	31	29	31	25	28

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

CPG-83***

TABLE 73

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C

Form adopted June 1946

IONOSPHERIC DATA

(M3000) F2 (Characteristic), ____ (Unit), October (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W 75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.J.S., J.W.P., L.F.M.

Calculated by: R.C.M., ____

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(2.7)$^{F}_{S}$	(2.7)$^{F}_{S}$	(2.8)^{F}	(3.0)^{F}	J^{F}	F^{B}	3.2	3.4	3.3	3.5	3.5	3.1	3.1	3.2	3.2	3.1	3.3	3.2	3.4	3.1	(2.9)$^{F}_{S}$	3.0	(2.9)$^{F}_{S}$	3.0^{F}
2	3.0^{F}	3.0^{F}	2.9^{F}	2.9^{F}	(2.8)^{F}	(2.9)$^{F}_{S}$	3.2^{F}	3.5	3.5	3.2	3.4	3.3	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.3	(3.0)$^{F}_{S}$	3.0	(2.9)$^{F}_{S}$	2.9
3	3.0^{F}	2.9	2.8	3.0	3.1	2.9^{F}	3.2	3.4	3.3	3.3	3.3	3.2	3.1	3.0	3.1	3.2	3.2	3.3	3.2	3.2^{F}	3.1^{F}	(3.1)$^{F}_{S}$	J^{S}	J^{S}
4	2.8	2.9	2.9	2.9	3.0	(3.2)$^{P}_{S}$	2.9	3.3	3.3	3.4	3.3	3.2	3.1	3.1	3.1	3.1	(3.3)$^{P}_{S}$	3.3	3.3	3.1	3.3	3.0	3.0	3.1^{F}
5	J^{S}	J^{F}	J^{F}	J^{F}	3.4^{F}	(3.0)^{F}	3.2^{F}	3.5	3.3	3.2	3.2	3.1	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0	2.9	2.9
6	3.0	2.8	3.0	3.1	3.2^{F}	3.1^{F}	3.0	3.4	3.4	3.5	3.4	3.1	3.0	3.1	3.0	3.1	3.1	(3.3)^{S}	3.3$^{J}_{S}$	3.0	3.0	2.9	(2.9)^{S}	2.9
7	(2.9)^{S}	2.9	3.0	(3.0)$^{F}_{S}$	(3.1)$^{F}_{S}$	(3.2)$^{F}_{S}$	(3.2)$^{P}_{S}$	3.4	3.5	3.3	3.3	3.1^{F}	3.0	3.1	3.1	3.2	3.2	3.3	3.2	3.2	3.0	2.9	3.0	2.8
8	2.8	2.8^{F}	3.0^{F}	(2.8)$^{F}_{S}$	(2.8)$^{F}_{S}$	2.7^{F}	(3.2)$^{F}_{S}$	3.4	3.3	3.3^{F}	3.1	3.1	3.0	3.1	3.1	3.2	3.2	3.3	3.2	3.0	3.0	2.9	2.8	2.9
9	2.9	2.9	3.0^{F}	3.0^{F}	3.0^{F}	3.1^{F}	3.3^{F}	3.5	3.4	3.4	3.2	3.1	3.1	3.3	3.0	3.2	3.2	3.3	3.2	3.4	(3.1)^{S}	3.0	3.0	3.0^{F}
10	2.9^{F}	C	C	(3.0)$^{F}_{S}$	(2.9)^{F}	2.9^{F}	3.1	(3.4)^{S}	C	3.3	3.3	3.1	3.1	3.1	C	3.1	3.2	3.2	3.3	3.1	3.1	3.1	3.0	3.0^{F}
11	2.9^{F}	2.9	2.9	2.9	3.2^{F}	3.1^{F}	2.9^{F}	3.4	3.4	3.3^{F}	3.2	3.1	3.0	3.0	3.0	3.1	3.1	3.2	3.2	3.0	3.0	3.1^{F}	3.0^{F}	3.0^{F}
12	2.9^{F}	3.0^{F}	3.1^{F}	J^{S}	J^{S}	2.9^{F}	(3.1)^{F}	3.4	3.4	3.4	3.3	3.1	3.3	3.0	3.2	3.2	3.2	3.2	(3.2)^{S}	3.1	(3.0)$^{S}_{F}$	2.9$^{J}_{S}$	J^{S}	J^{S}
13	J^{F}	2.9^{F}	J^{F}	J^{F}	J^{F}	(2.8)^{F}	J^{F}	3.4^{F}	3.3	3.5	3.4	3.4	3.3	3.2	3.1	3.2	3.3	3.3	3.2	(3.1)$^{F}_{S}$	J^{F}	(3.2)$^{P}_{S}$	J^{S}	2.9
14	(3.1)$^{P}_{F}$	(3.2)$^{P}_{F}$	3.2^{F}	(3.1)^{F}	(3.1)$^{P}_{F}$	(3.1)^{F}	3.2	3.5	3.4	3.4	3.3	3.2	3.2	3.2	3.2	3.2	3.4	3.5	3.4^{F}	3.2^{F}	3.2^{F}	(3.0)$^{F}_{S}$	3.0^{F}	(3.1)$^{F}_{S}$
15	(3.2)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.1)^{F}	(3.1)^{F}	(3.2)^{F}	3.5	3.5	3.6	3.6	3.2^{F}	3.2	3.2	3.2	3.2	3.3	3.5	3.4	3.1	3.1	2.9	3.0	3.0
16	3.0	3.2	3.1	3.0	3.0	3.0	3.1	3.4	3.6	3.5	3.4	3.5	3.2	3.1	3.4	3.4	3.5	3.4	3.6	3.1	3.1	2.9	2.9	3.0
17	3.0	3.0	3.1	3.3	3.2	3.1	3.2	3.5	3.6	3.4	3.2	3.2	3.2	3.2	3.1	3.3	3.3	3.4^{H}	3.4	3.2	3.0	3.0	2.9	3.0
18	3.0	3.1	3.0	2.9	3.1	3.0	3.1	3.5	3.6	3.6	3.4	3.2	3.2	3.2	3.2	3.3	3.4	3.4^{H}	3.4	3.1	3.3	3.0	3.0	3.0
19	3.0	3.1	3.1	3.1	3.2	3.4	3.0	3.3^{H}	3.5$^{V}_{H}$	3.5	3.5	3.2	3.1	3.2	3.2	3.2	3.4	3.4	3.3	3.3	3.2	3.1	3.1	3.0
20	3.0	3.0	3.0	3.2	3.3	3.0	3.0	3.5	3.5	3.5	3.5	3.4	3.2	3.4	(3.3)$^{P}_{S}$	3.3	3.4	3.6	3.4	3.3	3.2	3.2	3.1	3.0
21	3.0	3.0	2.9	2.9	3.2	3.1	3.2	3.4	3.5	3.4	3.3	3.4	3.3	3.2	3.2	3.4	3.4	3.5	3.3	3.1	3.2	3.1	J^{F}	J^{F}
22	(3.1)$^{J}_{F}$	3.0^{F}	3.1^{F}	(3.1)$^{F}_{S}$	F	F	(3.1)$^{P}_{F}$	3.4	3.5	3.5	3.3	3.2	3.2	3.2	3.3	3.3	3.4	3.3	(3.1)$^{F}_{S}$	(3.1)$^{F}_{S}$	J^{F}	(3.0)$^{P}_{F}$	J^{F}	(3.0)$^{P}_{F}$
23	3.0	(3.1)$^{P}_{S}$	3.0	3.0	3.2	3.1	3.3	3.5	3.5	3.5	3.2	3.4	3.2	3.3^{F}	3.2	3.2	3.3	3.4	(3.2)^{S}	(3.2)$^{F}_{S}$	3.3	3.2	3.1	3.2
24	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.5	3.5	3.5	3.5	3.2^{H}	3.3	3.3	3.4	3.3	3.4	3.4	3.4	3.3	3.2	2.9	2.8	2.8
25	2.8	2.9	3.2	(3.0)$^{F}_{S}$	J^{F}	2.7^{F}	2.9^{F}	3.1^{F}	3.0^{F}	2.3^{F}	2.5	2.7^{F}	2.9$^{F}_{H}$	2.8	2.9	2.9	3.1	3.1	3.1	3.3	3.0	2.9	2.9	3.2^{F}
26	J^{F}	(2.9)$^{F}_{S}$	J^{F}	F	F^{S}	(3.0)^{F}	3.2^{F}	3.2^{F}	3.3	3.1^{F}	3.2	3.2	3.2	3.1	3.0	3.0	3.4	3.2^{F}	3.2	3.2	3.4	3.1^{F}	3.0^{F}	3.0^{F}
27	J^{F}	J^{F}	F	(3.0)$^{F}_{S}$	(3.0)$^{A}_{F}$	(3.0)^{A}	(3.2)^{A}	3.4	3.3	3.4	3.5	3.3^{F}	3.2	3.2	3.3	3.4	3.4	3.3	3.4	3.2	3.2	3.3	(3.3)^{F}	(3.2)^{F}
28	(3.0)$^{F}_{S}$	(2.9)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.1)$^{F}_{S}$	(3.1)$^{P}_{S}$	3.5^{F}	3.4	3.4	(3.1)^{F}	3.3	3.2	3.2	3.1	3.3	3.5	3.4	3.4	3.2	3.3	3.2	(3.0)$^{F}_{S}$	3.0^{F}
29	(2.9)$^{F}_{S}$	(3.0)$^{F}_{S}$	(2.9)$^{F}_{S}$	J^{F}	(3.2)$^{F}_{S}$	(3.1)$^{F}_{S}$	(2.9)$^{F}_{S}$	(3.6)$^{F}_{S}$	3.5^{F}	3.3^{F}	3.4	3.1	3.1	3.2	3.2	3.3	3.3	3.3	3.4^{F}	3.1^{F}	(3.2)$^{F}_{S}$	3.1	C	3.1
30	(3.1)$^{F}_{S}$	(3.1)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.0)$^{F}_{S}$	(3.1)$^{F}_{S}$	(3.0)$^{F}_{S}$	3.5	3.6	3.5	3.4	3.3	3.2	3.2	3.2	3.3	3.3	(3.3)^{S}	3.3	3.2^{F}	3.4^{F}	3.1^{F}	3.0^{F}	2.9
31	2.8^{F}	(2.9)^{F}	3.2^{F}	(3.0)^{F}	3.0^{F}	3.0^{F}	3.0^{F}	3.4	3.4	3.4	3.3	3.0	3.1	3.2	3.2	3.2	(3.2)^{S}	3.2	3.3	3.1	3.3	(3.4)^{S}	3.2	(3.0)$^{F}_{S}$
Median	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.4	3.4	3.4	3.3	3.2	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.1	3.1	3.0	3.0	3.0
Count	27	28	26	26	25	29	30	31	30	31	31	31	31	31	30	31	31	31	31	31	29	31	25	28

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 936048

TABLE 74

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M3000)F1 (Characteristic) , (Unit) October (Month), 1955

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E.J.W., J.J.S., J.W.P.

Calculated by: J.W.W., K.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1								Q	L	(3.8)^{L}	L	3.6	(3.7)$^{L}_{H}$	(3.7)^{L}	L	L	L	L							
2								L	L	L	L^{H}	(3.7)^{L}	3.7	(3.6)^{L}	(3.7)^{L}	L	L	Q							
3								L	L	L	L	L	3.6^{H}	3.7	(3.8)$^{L}_{H}$	L	L	L	Q							
4								Q	L	L	L	L^{H}	L	L	3.9	L	L	Q								
5								Q	L	L	(3.9)^{L}	(3.9)$^{L}_{H}$	L	(3.6)^{L}	L	L	L	Q							
6								Q	L	L	(3.8)^{H}	3.9^{H}	L^{H}	L	(3.8)^{H}	L	L	L								
7								Q	L	L^{H}	(3.7)^{L}	(3.7)^{L}	L^{H}	L^{H}	L^{H}	L	L	Q								
8								Q	L	L^{H}	(3.9)^{L}	3.7^{H}	(3.7)$^{L}_{H}$	L^{H}	L	L	L	Q								
9								A	Q	L	L	L	3.7	L^{H}	L^{H}	L^{H}	L	Q								
10								L	L	L	L	L	L^{H}	(3.7)$^{L}_{H}$	L	L^{H}	L	Q								
11								Q	L	L	3.9	L	(3.8)^{L}	3.7^{H}	L	L	L	L								
12								Q	L	L	4.0	L	L^{H}	L	L^{H}	L^{H}	L	Q								
13								Q	L	L	L^{H}	L^{H}	L^{H}	L	L	L	L	Q								
14								Q	Q	L	L	L	3.8^{H}	L	L	L	L	Q								
15								Q	L	L	L	L	L	L	L^{H}	L	L	Q								
16								Q	L	L	L^{H}	L^{H}	L	L	L	3.8	L	Q								
17								Q	L	L	L	L	(3.7)^{L}	L^{H}	L	L	L	Q								
18								Q	L	L	L	L	L^{H}	3.7^{H}	L^{H}	L	L	Q								
19								Q	Q	L	L	3.7^{H}	3.8^{H}	L	L	L	L	Q								
20								Q	L	L	(3.8)^{L}	L	L	L	L	L	L	Q								
21								L	L^{H}	L	(3.8)^{L}	(3.8)^{L}	(3.8)^{L}	(3.9)^{L}	L^{H}	L	L	Q								
22								Q	L	L	L	(3.8)^{L}	(3.7)^{L}	L	L	L	Q	Q								
23								Q	L	L	L	L	L	L	L^{H}	L	L	Q								
24								Q	L	L^{H}	L	L	L^{H}	L	L	L	L	Q								
25								Q	L	3.5	3.5^{H}	3.6^{H}	3.6	3.5^{H}	B	L	L	Q								
26								Q	L	3.6	3.8	3.9	(4.0)^{L}	L^{H}	L	L	L	Q								
27								Q	L	L	L	L	L	L	L	L	Q	Q								
28								Q	Q	L	L	L^{H}	L^{H}	L	L	L	Q	Q								
29								Q	Q	L	L	L^{H}	L	L	L	L	Q	Q								
30								Q	L	L	L	L	L^{H}	L	L	L	Q	Q								
31								Q	L	L	L	L	L	L	L	L	L^{H}	Q								
Median								—	—	—	(3.8)	3.7	(3.7)	(3.7)	—	—	—	—								
Count								0	0	3	10	11	13	9	4	1	0	0								

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 75

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

IONOSPHERIC DATA

(M1500) E (Characteristic), _____ (Unit), October (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.J.S., J.W.P., L.F.M.

Calculated by: E.J.W., _____, J.W.P.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1								A	A	4.4	(4.3)^{A}	4.3	4.4	4.3	4.3	4.4^{H}	A	4.4								
2								4.3	4.4	(4.4)^{A}	A	A	A	4.3	(4.3)^{A}	4.3	4.4	4.4								
3								A	A	A	A	A	4.4	4.2^{H}	4.2^{H}	4.2^{H}	4.3	4.4)^{A}	S								
4								4.3^{H}	4.1^{H}	A^{H}	A	A	A	4.2	4.2	4.4	4.4	A									
5								4.2^{H}	A	A	A	A	A	4.3	A	4.3^{H}	4.5^{H}	4.4									
6								A	(4.4)^{A}	A	A	A	4.4^{H}	4.3^{H}	4.2^{H}	4.2^{H}	4.3^{H}	4.3									
7								(4.3)^{H}	4.4^{H}	4.2^{H}	(4.4)^{H}	A	A	A	A	(4.2)^{A}	(4.1)^{S}	(4.2)^{H}									
8								(4.2)^{S}	4.3	4.3	4.2^{H}	4.2^{H}	(4.4)^{A}	4.5	4.2	4.3	4.3	A									
9								A	A	A	A	A	4.2^{H}	4.2^{H}	4.4	4.3	4.3	4.3									
10								A	3	4.4^{H}	A	4.4	5	(4.4)^{D}	3	4.4^{H}	4.3	A									
11								4.2^{H}	4.3^{H}	4.4	4.4^{H}	S^{H}	4.3	4.2^{H}	4.1	(4.3)^{1}	(4.4)^{D}	A									
12								4.3^{H}	4.4	A	(4.2)^{D}	4.2	4.2	4.0^{H}	4.1	4.3^{H}	4.3	A									
13								4.2	4.1	A	H	4.2^{H}	4.2^{H}	4.2	A	A	A	H									
14								(4.1)^{H}	(4.1)^{H}	A	A	4.4	4.4	4.4	4.3	4.4	(4.4)^{S}	A									
15								4	A	A	A	A	4	A	A	A	A	S									
16								4.4	A	A	A	4.2^{H}	4.3	4.3	4.2	4.4	4.4	S									
17								0	A	4.3^{H}	4.4^{H}	4.3^{H}	4.3	4.3^{H}	4.1^{H}	4.2^{H}	4.3	S									
18								4.5^{H}	4.3^{H}	4.4^{F}	4.4	4.3^{H}	4.4^{H}	4.4	4.1^{H}	4.2	4.5	S									
19								S	4.2	4.2	4.1	4.1	4.1	4.1	4.2^{H}	4.4^{H}	4.2^{H}	S									
20								4.3^{H}	(4.3)^{H}	(4.2)^{H}	A	A	4.3	(4.3)^{H}	A	A	A	S									
21								A	A	A	A	A	A	A	(4.3)^{H}	(4.3)^{S}	4.3^{H}	S									
22								S	(4.3)$^{3}_{H}$	4.5	(4.3)^{H}	4.1	4.1	4.1	4.2	4.2	S										
23								(4.1)^{H}	(4.2)^{H}	4.2^{H}	4.3^{H}	A	A	4.3	(4.3)^{A}	(4.4)^{H}	(4.3)^{H}	S									
24								(4.2)^{H}	A	A	A	A	4.4	(4.3)^{D}	4.3	4.4	(4.3)^{S}	S									
25								A	A	A	4.4	4.5^{H}	4.4	(4.4)^{A}	13	4.4	4.4	S									
26								A	A	4.5	A	(4.4)^{D}	4.4^{F}	4.3	4.4	A	A	S									
27								S	A	(4.3)^{A}	A	A	4.3	4.4	4.4	4.3	(4.3)^{S}	S									
28								A	A	A	4.2	4.3	4.3	4.4	4.3	4.4	(4.4)^{A}	S									
29								S	4.3	A	A	A	A	A	A	A	A	A									
30								A	A	A	A	A	A	4.3	4.4	4.3	A	A									
31								(4.4)^{S}	A	A	A	(4.3)^{D}	A	4.3	4.3	4.3	S	S									
Median								4.3	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.4	—								
Count								15	15	14	12	15	20	27	23	26	22	7	0								

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

CPO 8Jn048

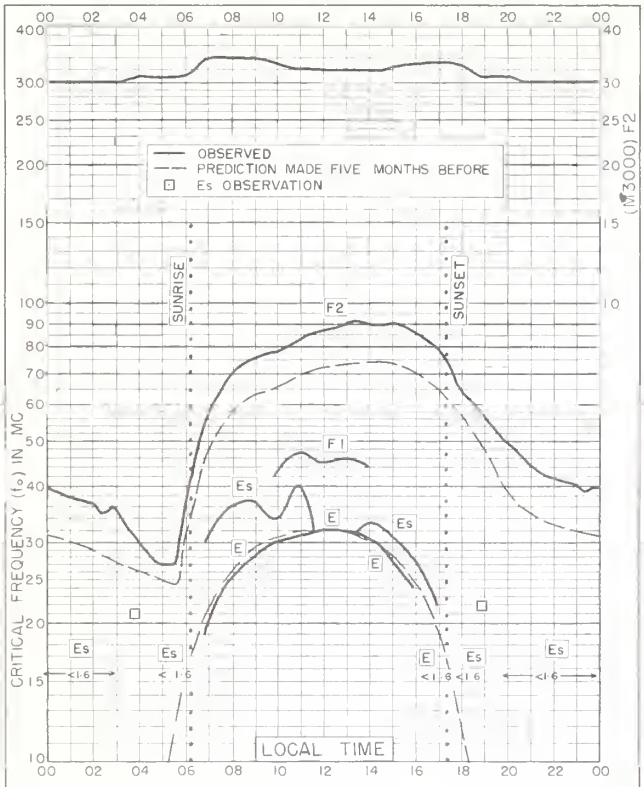


Fig. 1. WASHINGTON, D. C.
38.7°N, 77.1°W OCTOBER 1955

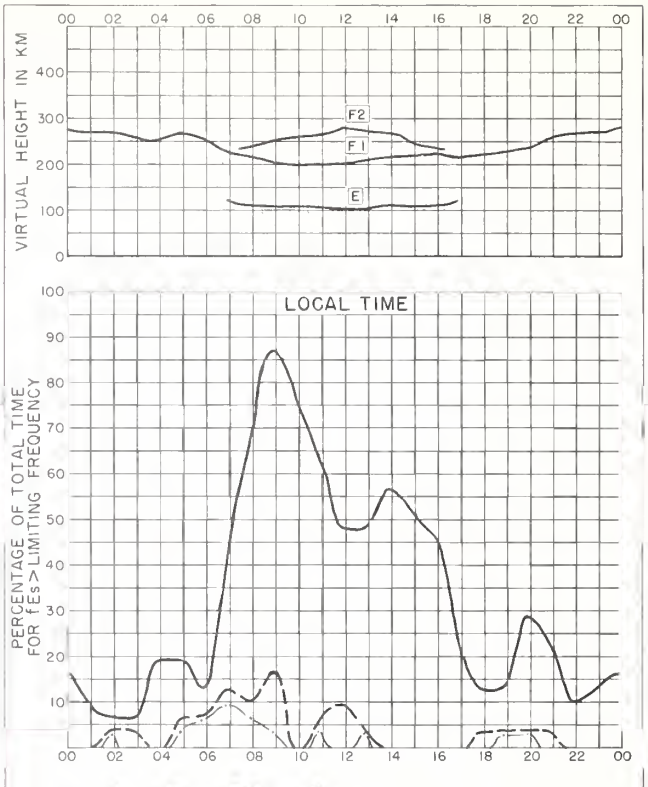


Fig. 2. WASHINGTON, D. C. OCTOBER 1955

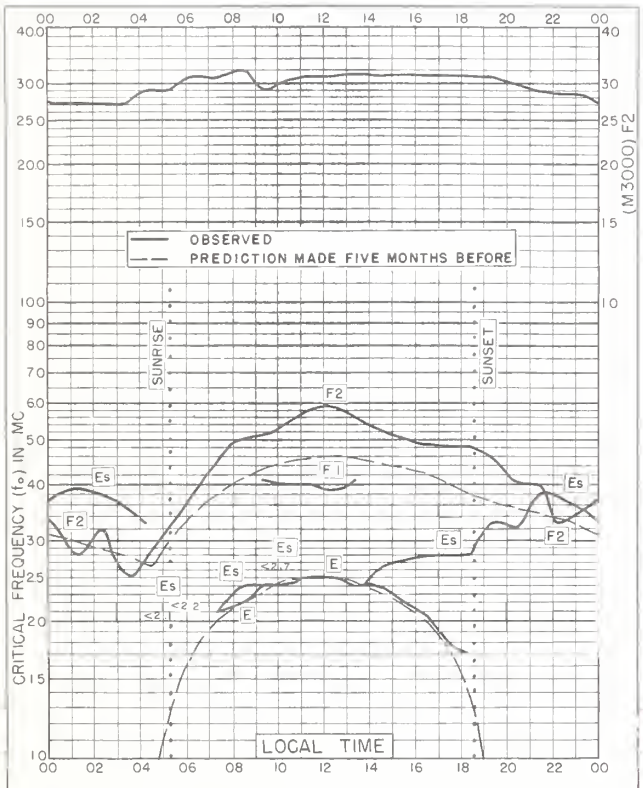


Fig. 3. TROMSO, NORWAY
69.7°N, 19.0°E SEPTEMBER 1955

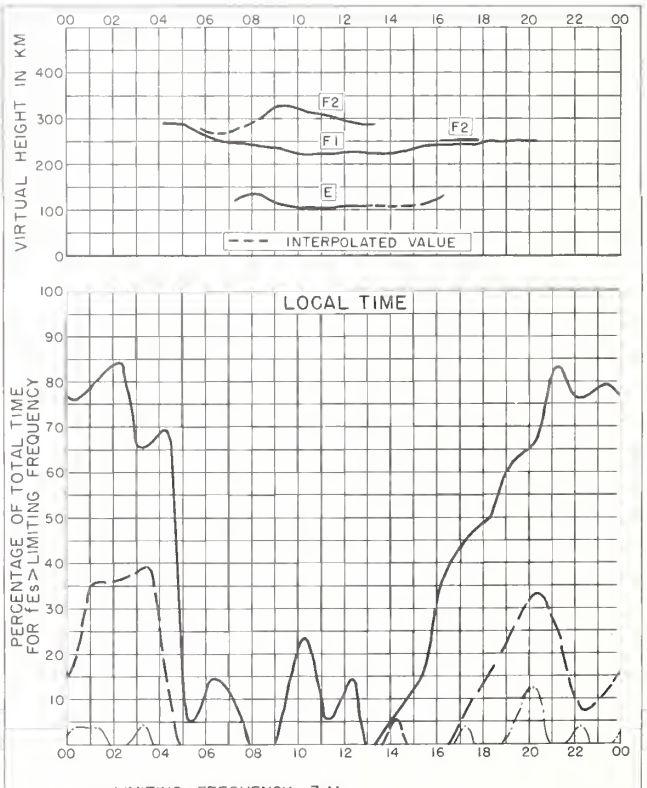


Fig. 4. TROMSO, NORWAY SEPTEMBER 1955

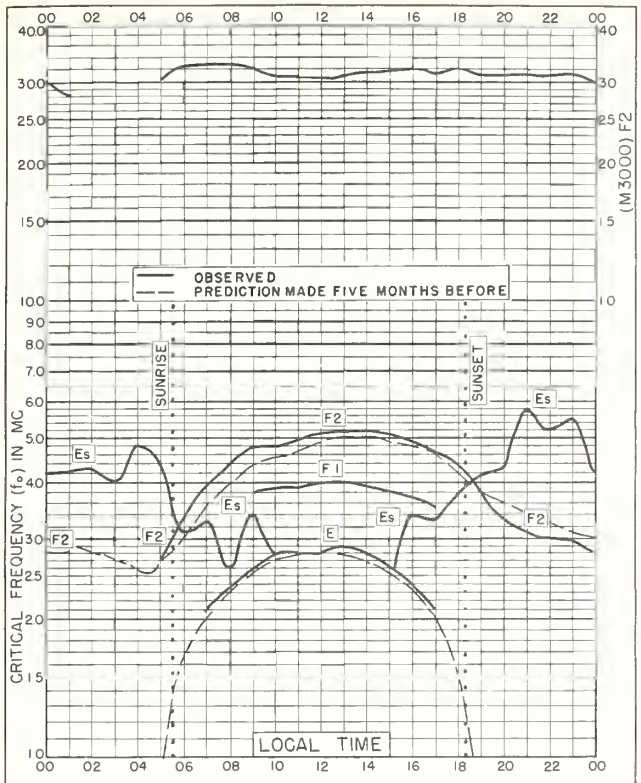


Fig. 5. NARSARSSUAK, GREENLAND
61.2°N, 45.4° W SEPTEMBER 1955

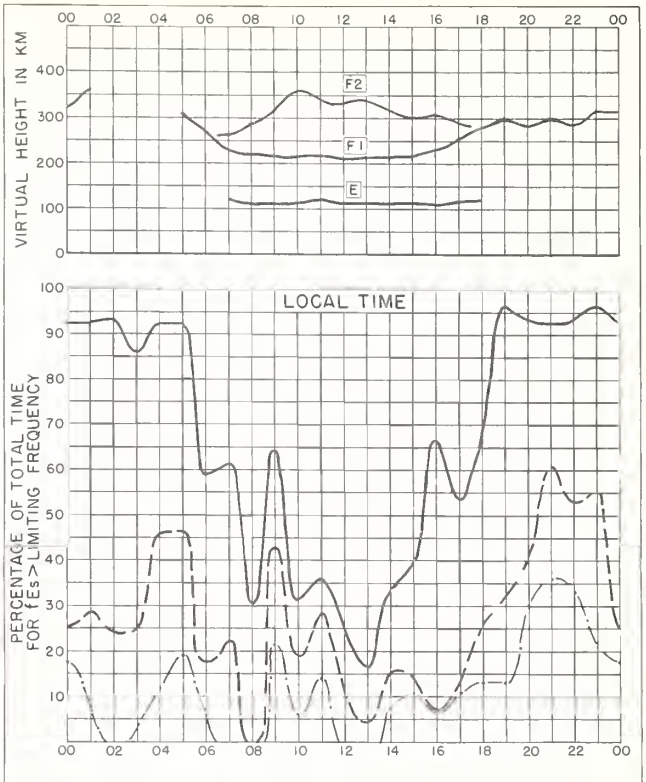


Fig. 6. NARSARSSUAK, GREENLAND SEPTEMBER 1955

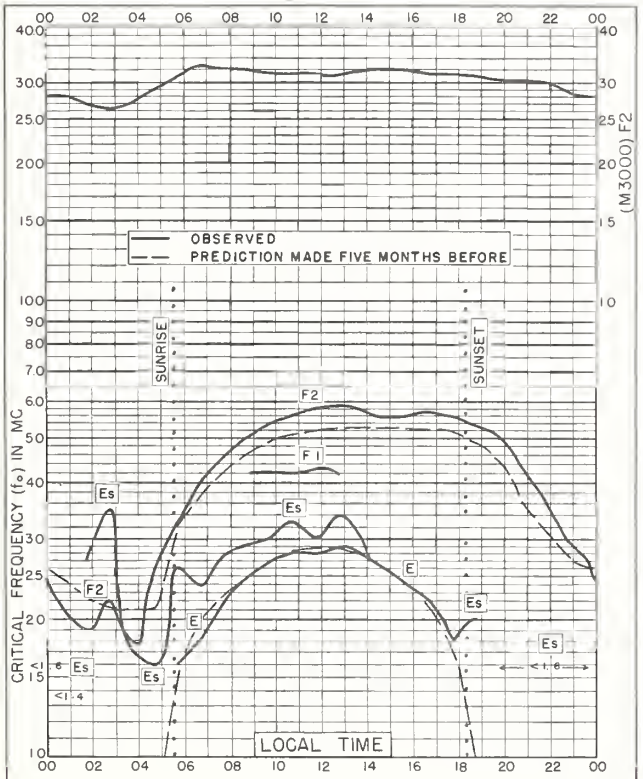


Fig. 7. OSLO, NORWAY
60.0°N, 11.1°E SEPTEMBER 1955

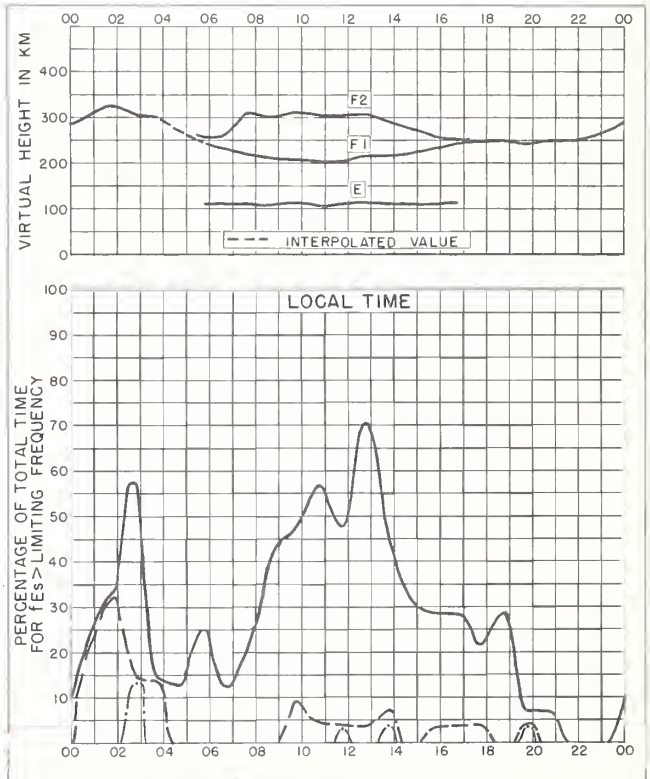


Fig. 8. OSLO, NORWAY SEPTEMBER 1955

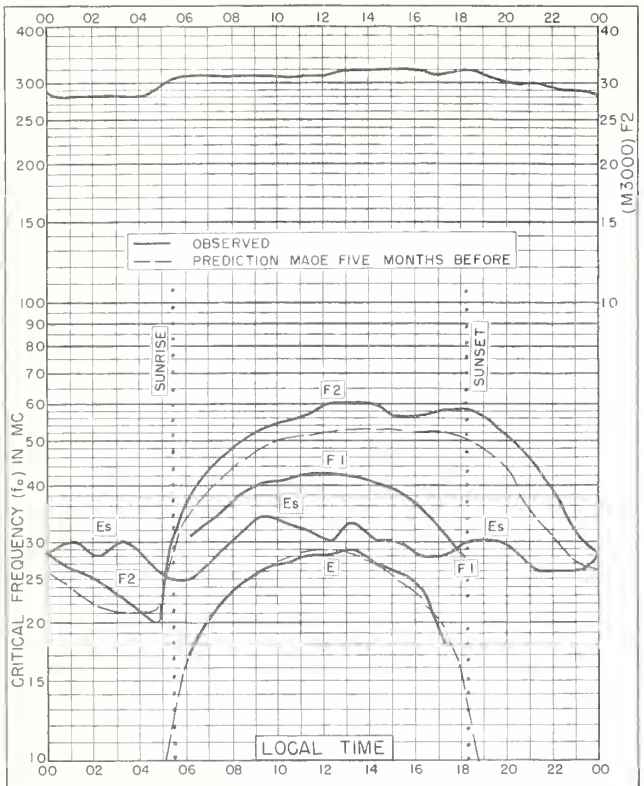


Fig. 9. UPSALA, SWEDEN
59.8°N, 17.6°E SEPTEMBER 1955

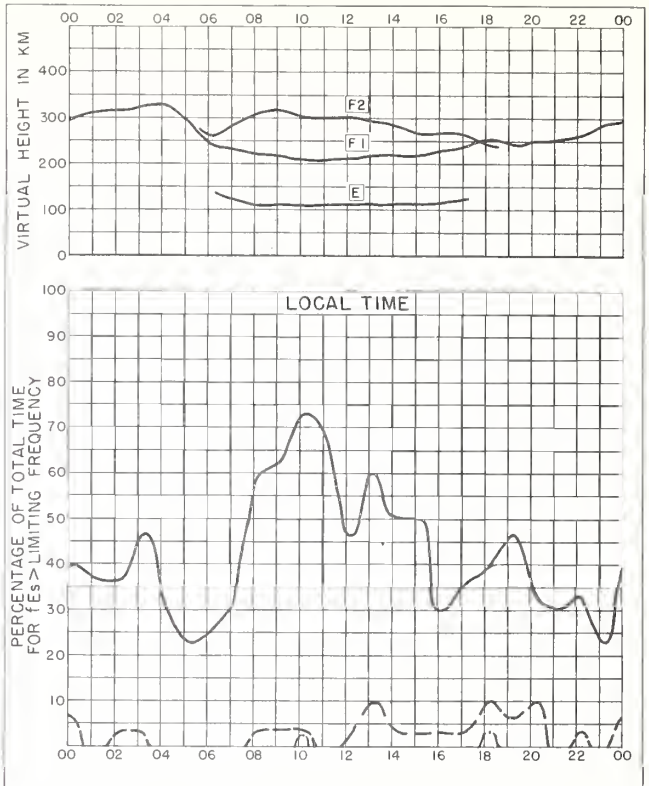


Fig. 10. UPSALA, SWEDEN SEPTEMBER 1955

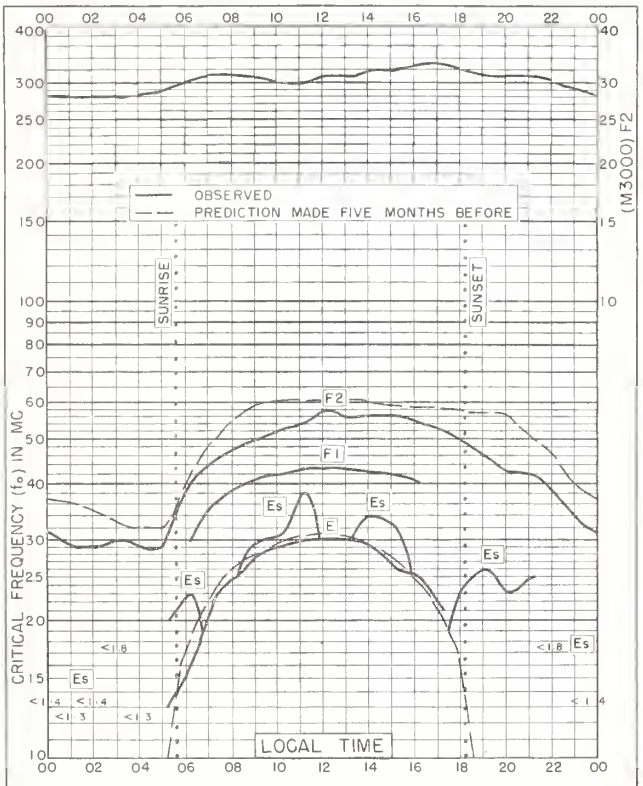


Fig. 11. ADAK, ALASKA
51.9°N, 176.6°W SEPTEMBER 1955

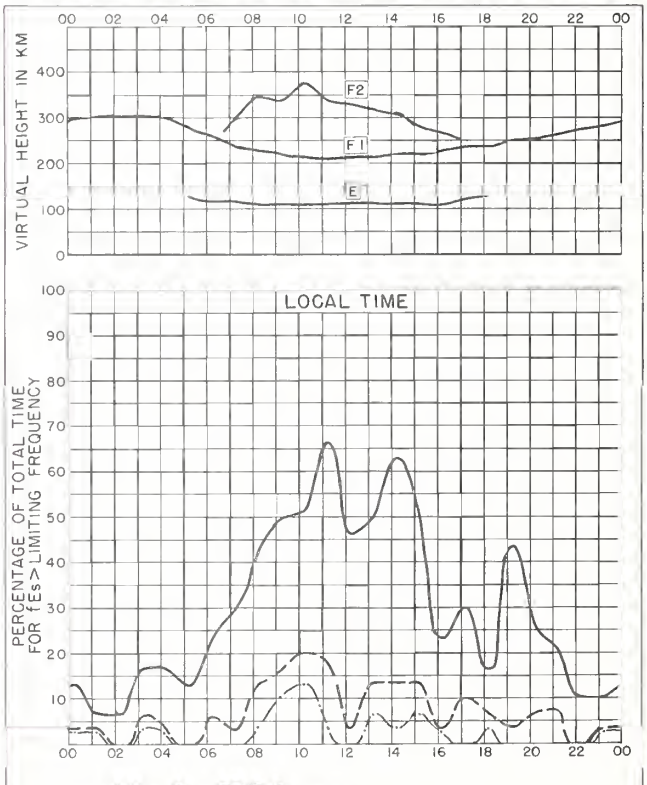


Fig. 12. ADAK, ALASKA SEPTEMBER 1955

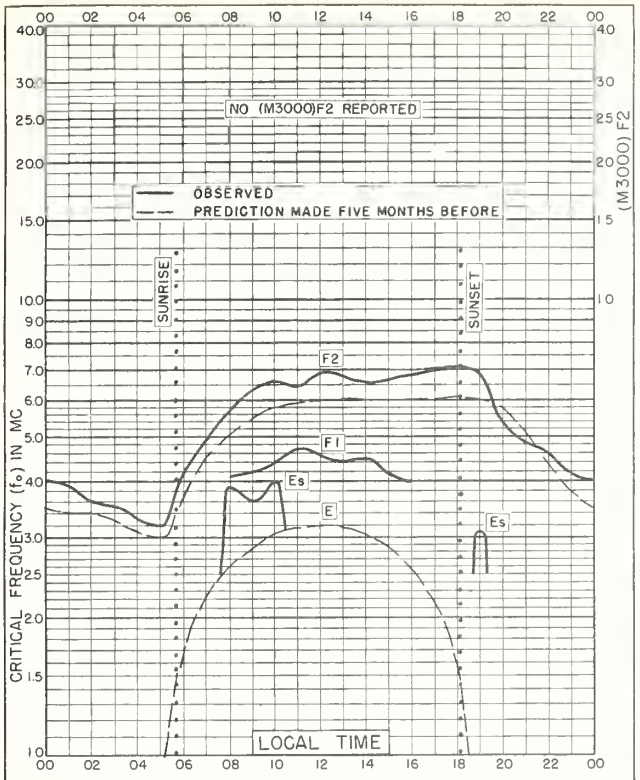


Fig. 13. GRAZ, AUSTRIA
47.1°N, 15.5°E SEPTEMBER 1955

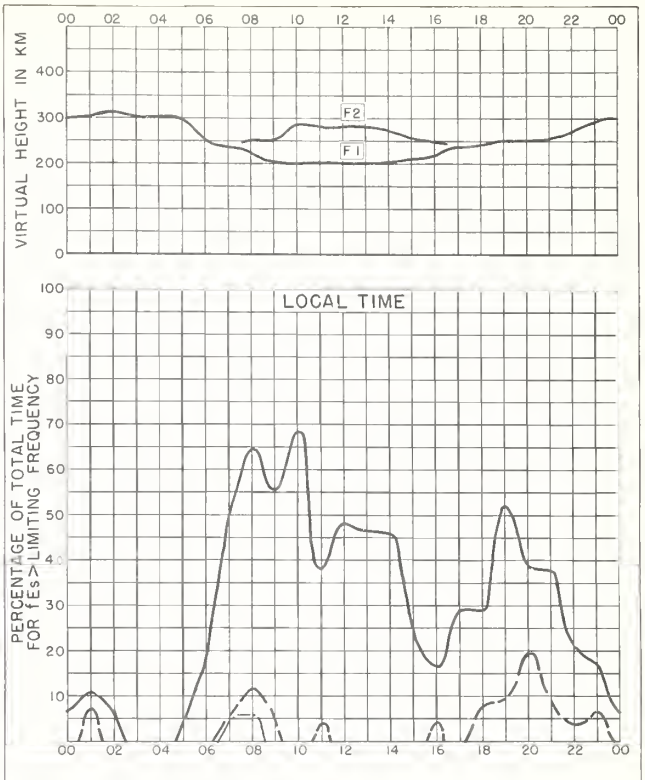


Fig. 14. GRAZ, AUSTRIA SEPTEMBER 1955

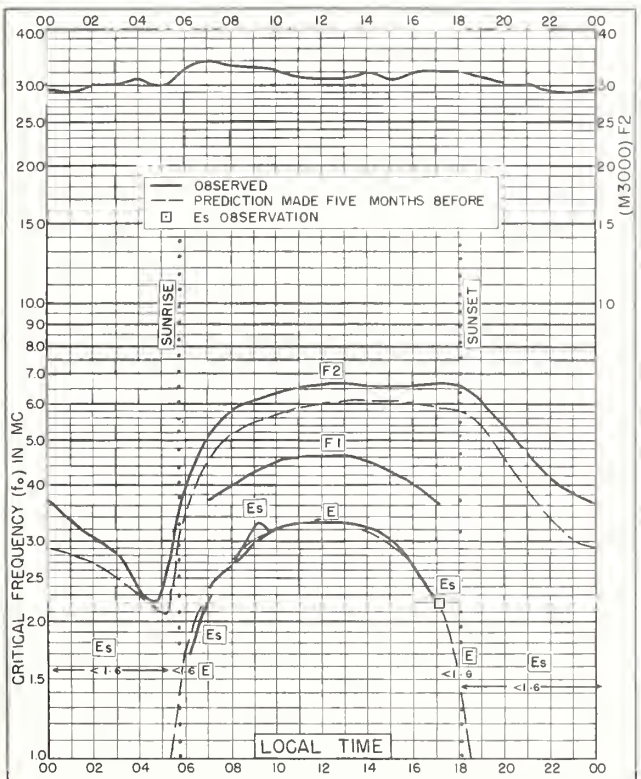


Fig. 15. FT. MONMOUTH, NEW JERSEY
40.3°N, 74.1°W SEPTEMBER 1955

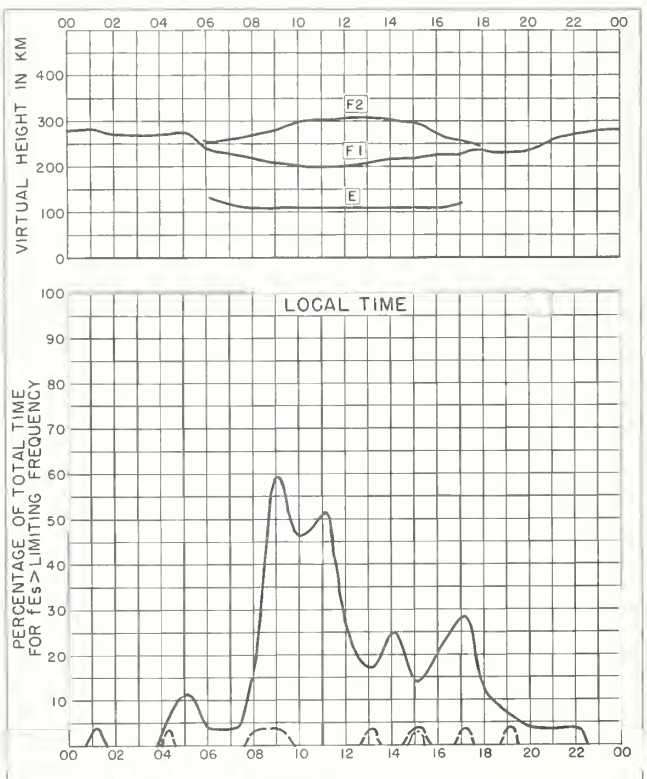


Fig. 16. FT. MONMOUTH, NEW JERSEY SEPTEMBER 1955

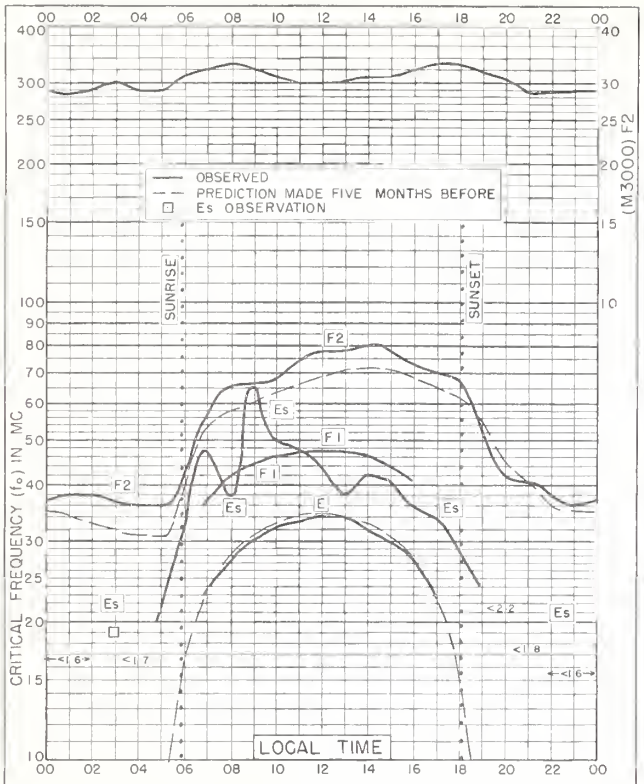


Fig. 17. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W SEPTEMBER 1955

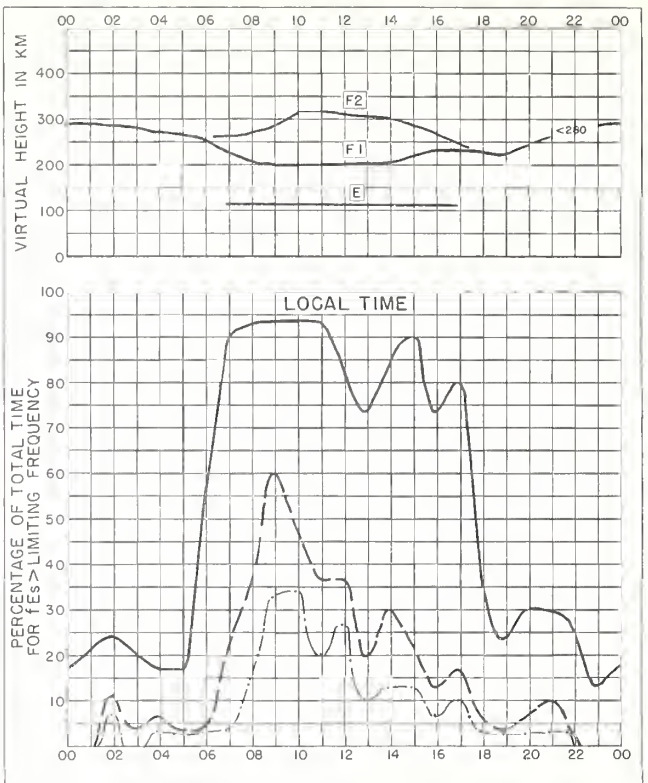


Fig. 18. WHITE SANDS, NEW MEXICO SEPTEMBER 1955

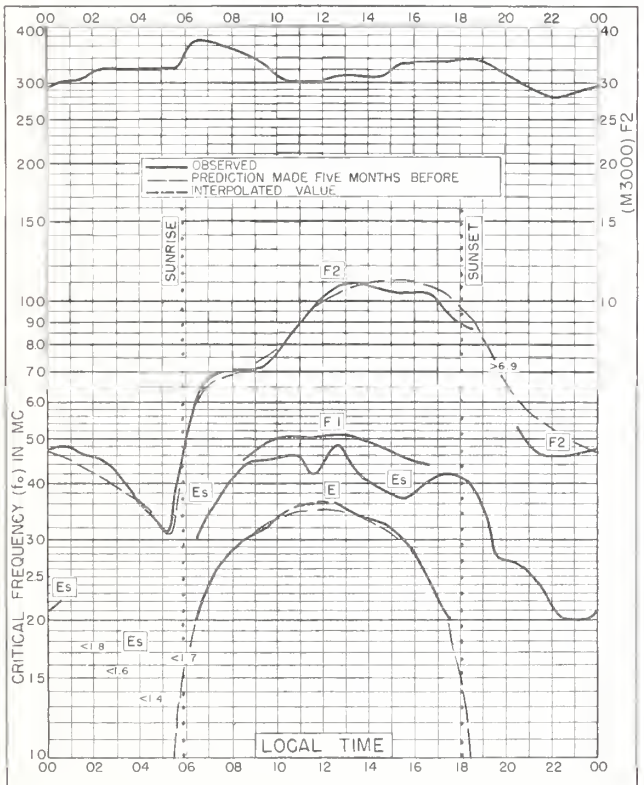


Fig. 19. OKINAWA I.
26.3°N, 127.8°E SEPTEMBER 1955

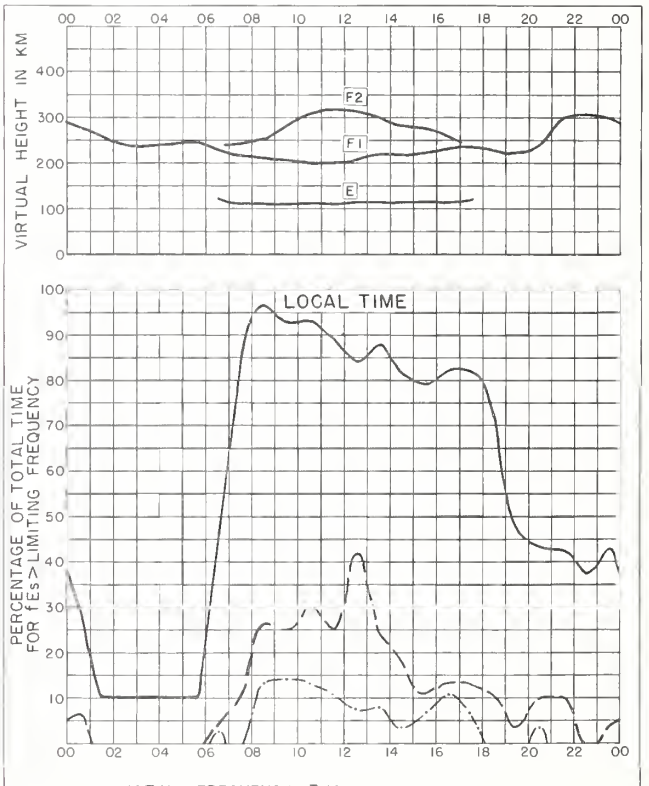


Fig. 20. OKINAWA I. SEPTEMBER 1955

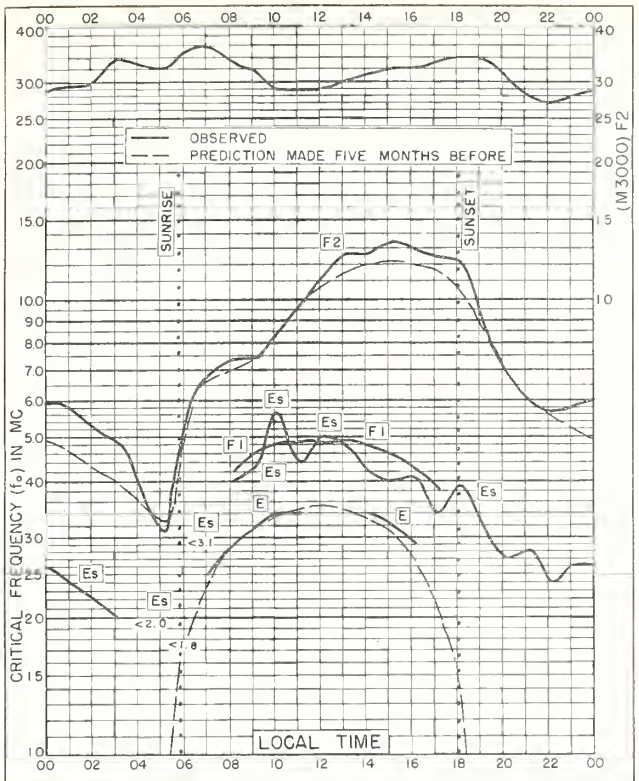


Fig. 21. FORMOSA, CHINA
25.0°N, 121.5°E SEPTEMBER 1955

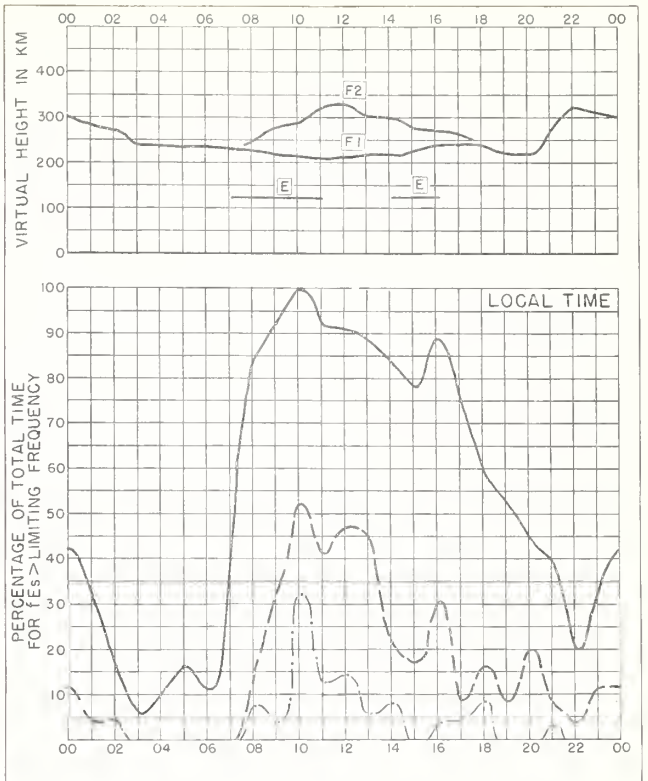


Fig. 22. FORMOSA, CHINA SEPTEMBER 1955

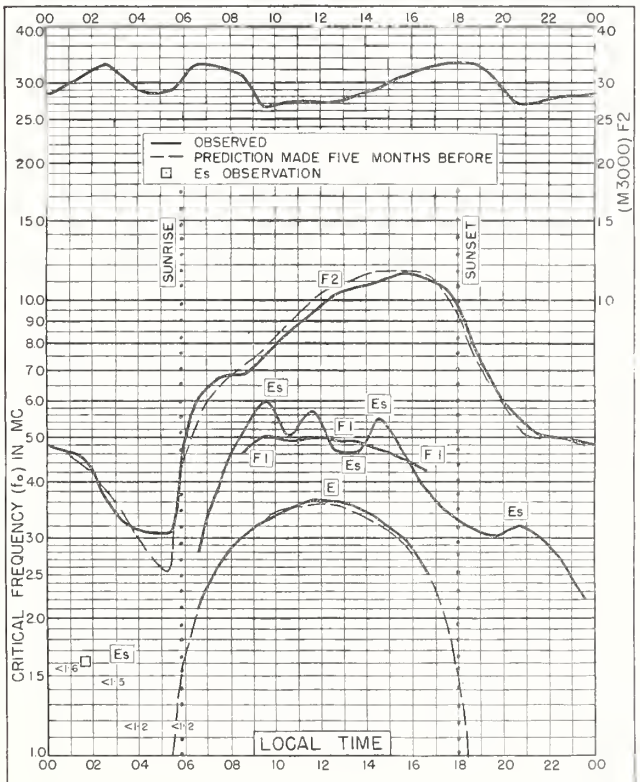


Fig. 23. MAUI, HAWAII
20.8°N, 156.5°W SEPTEMBER 1955

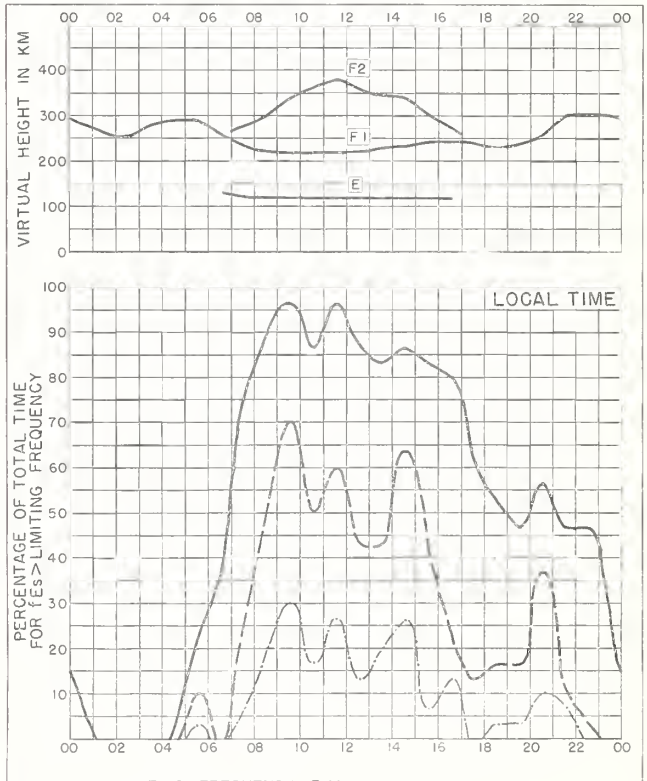


Fig. 24. MAUI, HAWAII SEPTEMBER 1955

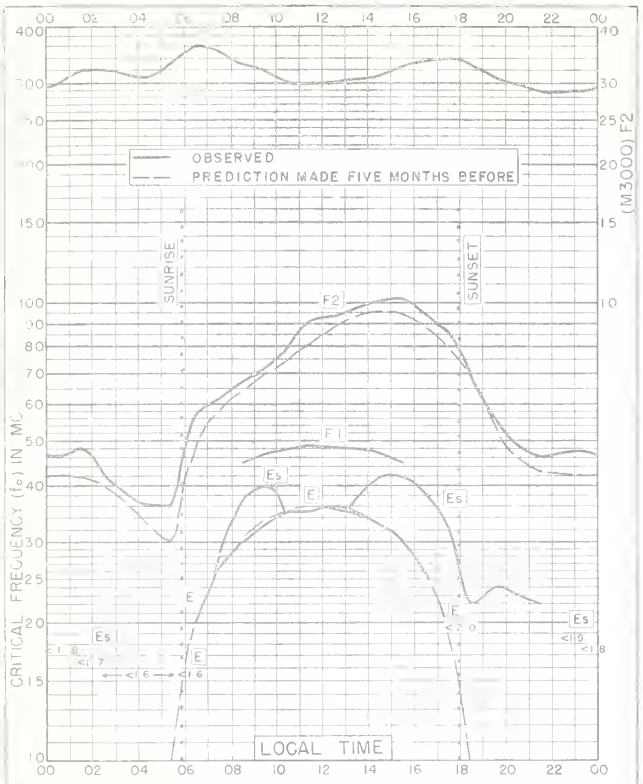


Fig. 25. PUERTO RICO, W. I.
18.5°N, 67.2°W SEPTEMBER 1955

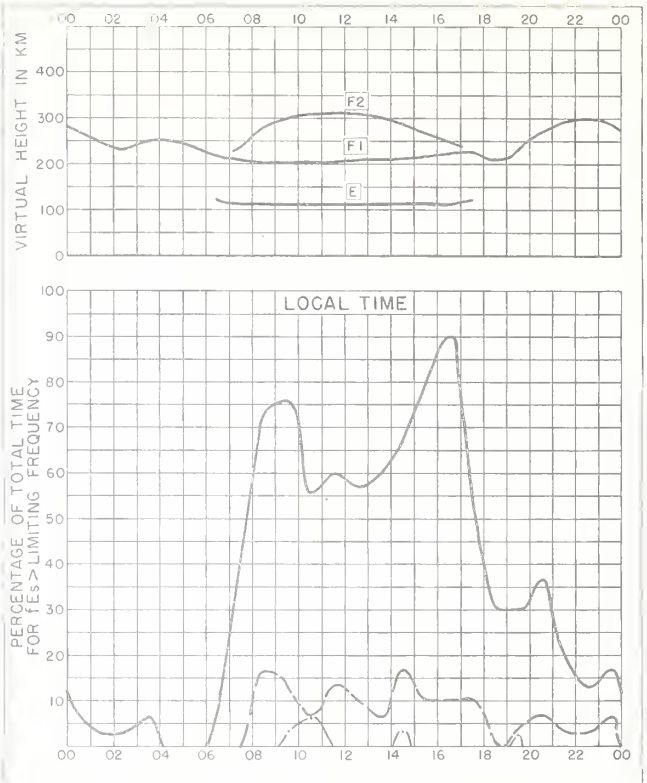


Fig. 26. PUERTO RICO, W.I. SEPTEMBER 1955

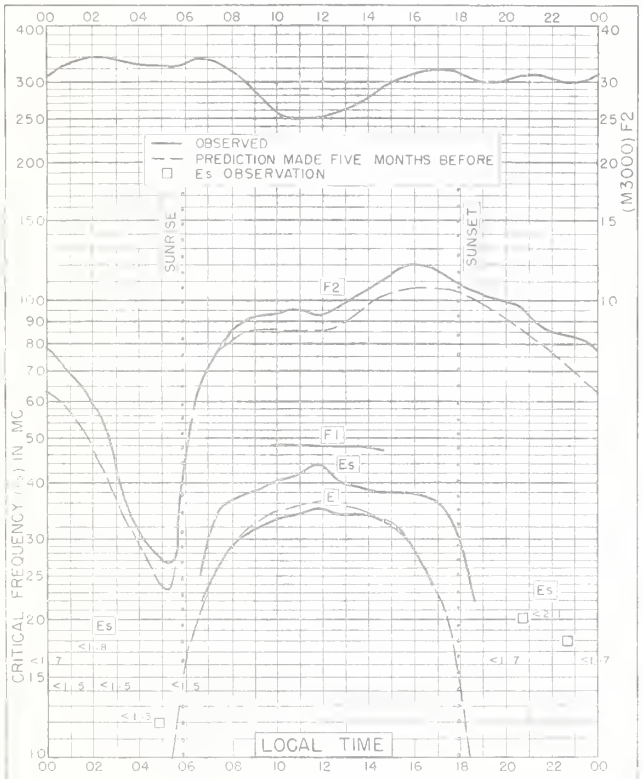


Fig. 27. GUAM I.
13.6°N, 144.9°E SEPTEMBER 1955

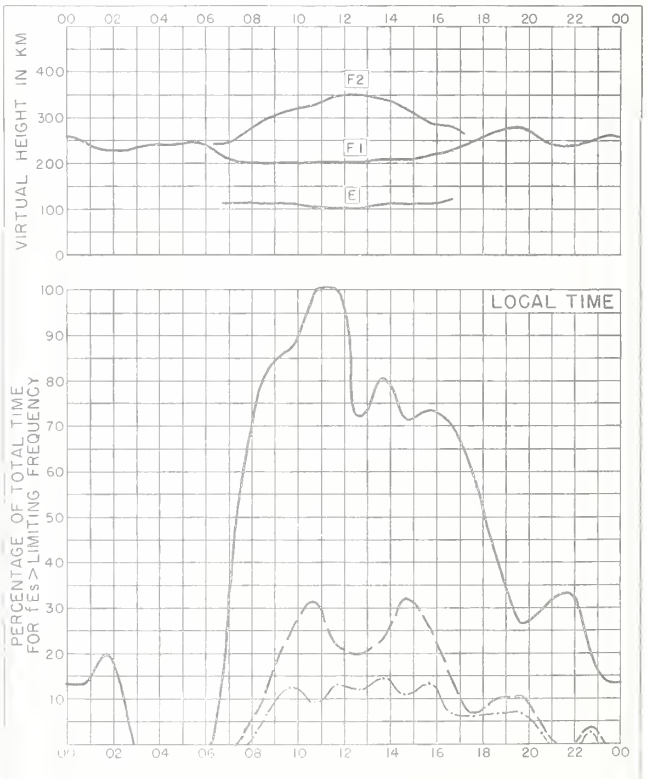


Fig. 28. GUAM I. SEPTEMBER 1955

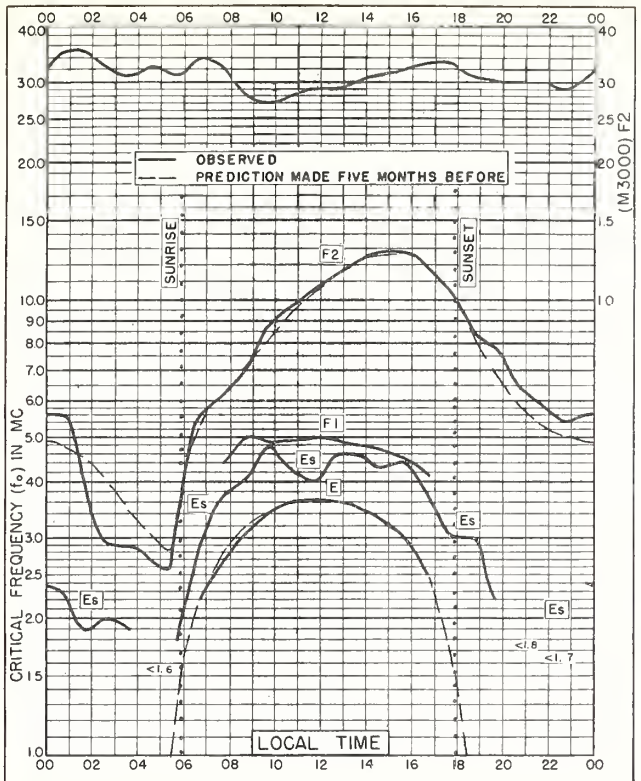


Fig. 29. PANAMA CANAL ZONE
9.4°N, 79.9° W SEPTEMBER 1955

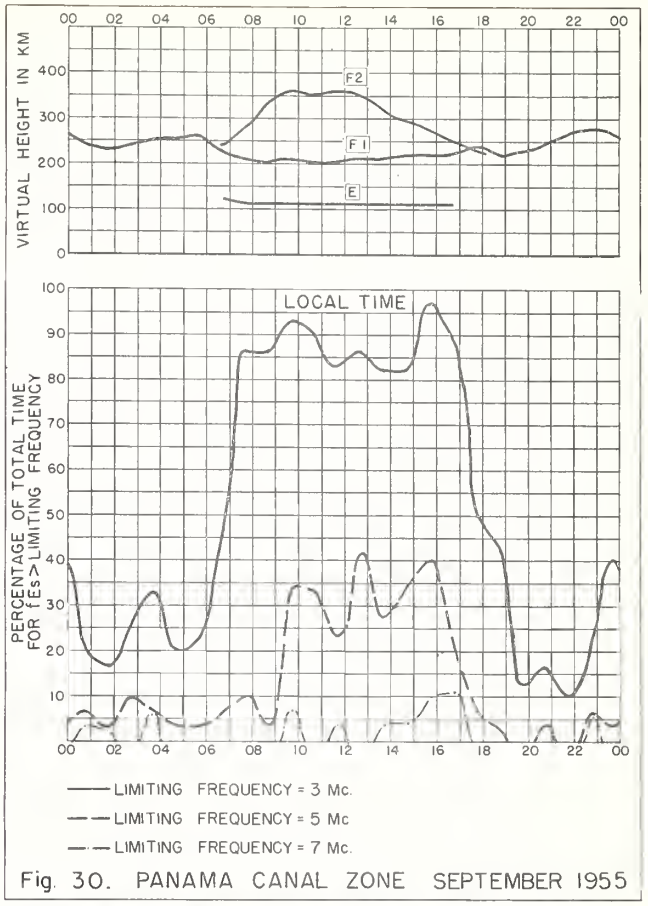


Fig. 30. PANAMA CANAL ZONE SEPTEMBER 1955

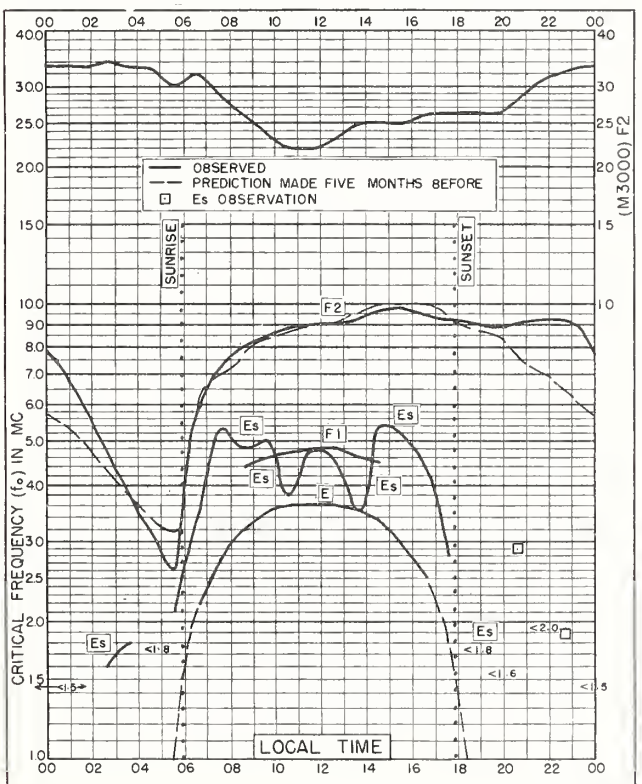


Fig. 31. TALARA, PERU
4.6°S, 81.3° W SEPTEMBER 1955

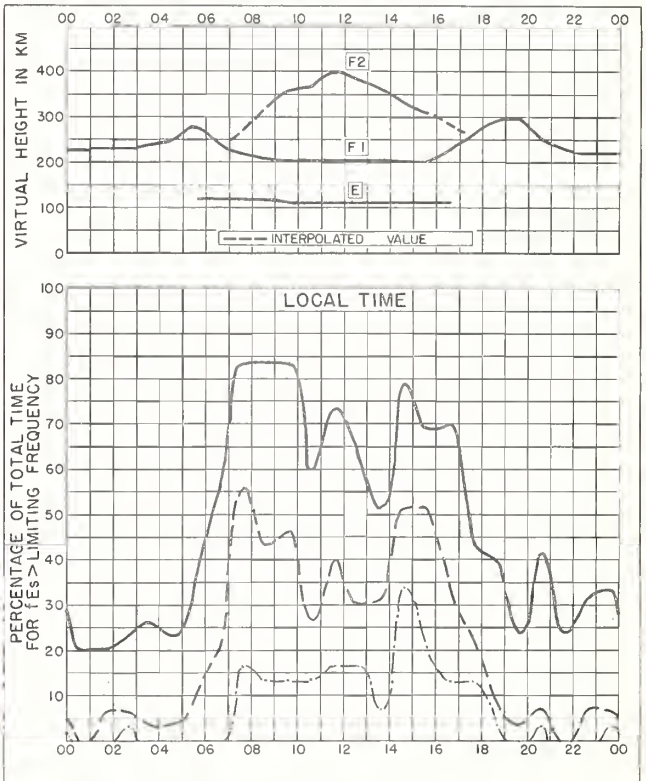


Fig. 32. TALARA, PERU SEPTEMBER 1955

NBS 430

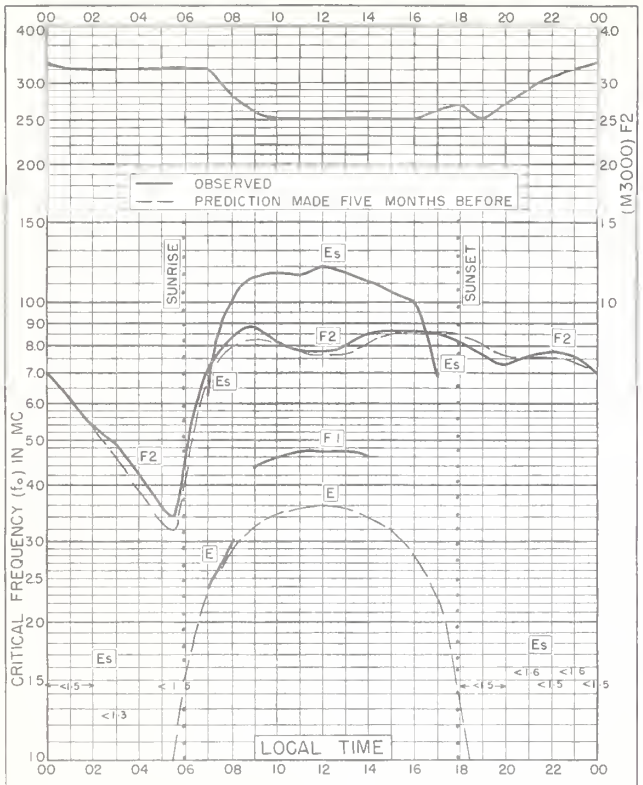


Fig. 33. HUANCAYO, PERU
12.0°S, 75.3°W SEPTEMBER 1955

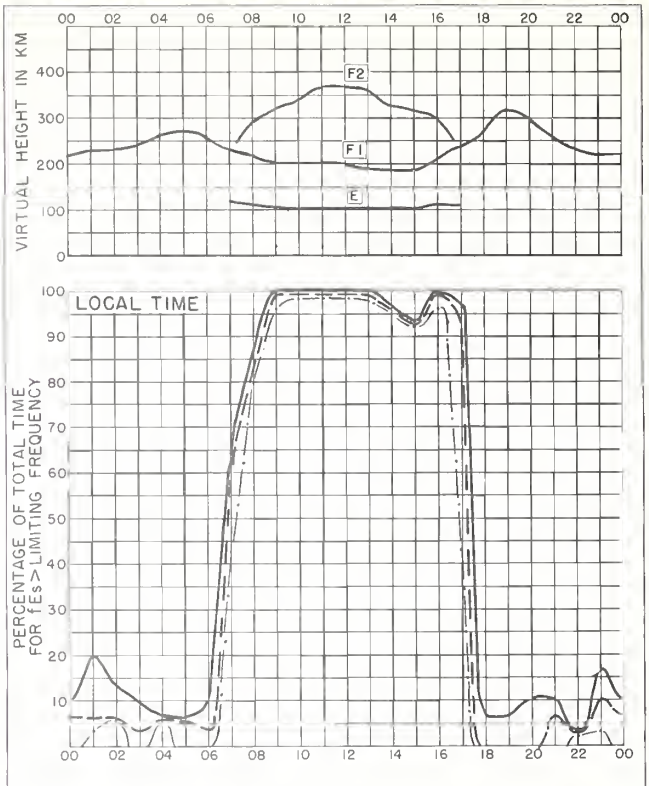


Fig. 34. HUANCAYO, PERU SEPTEMBER 1955

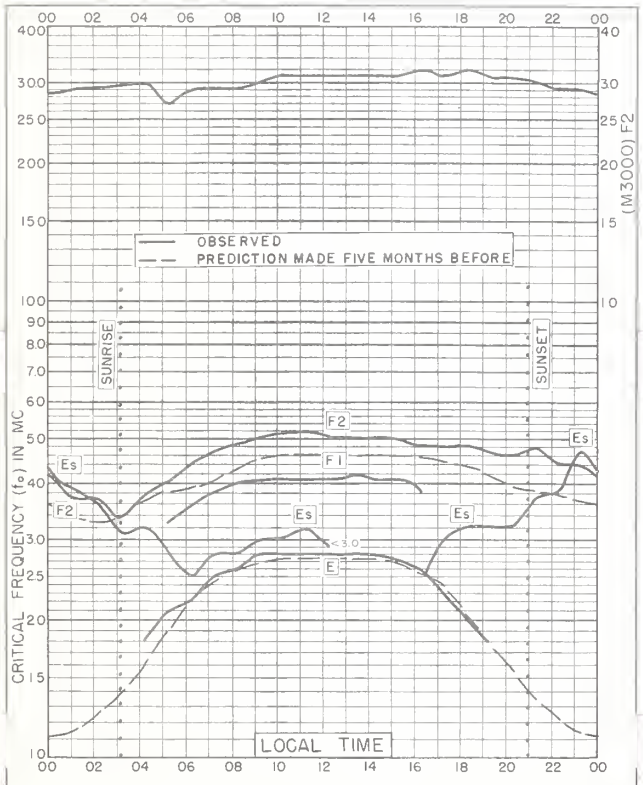


Fig. 35. TROMSO, NORWAY
69.7°N, 19.0°E AUGUST 1955

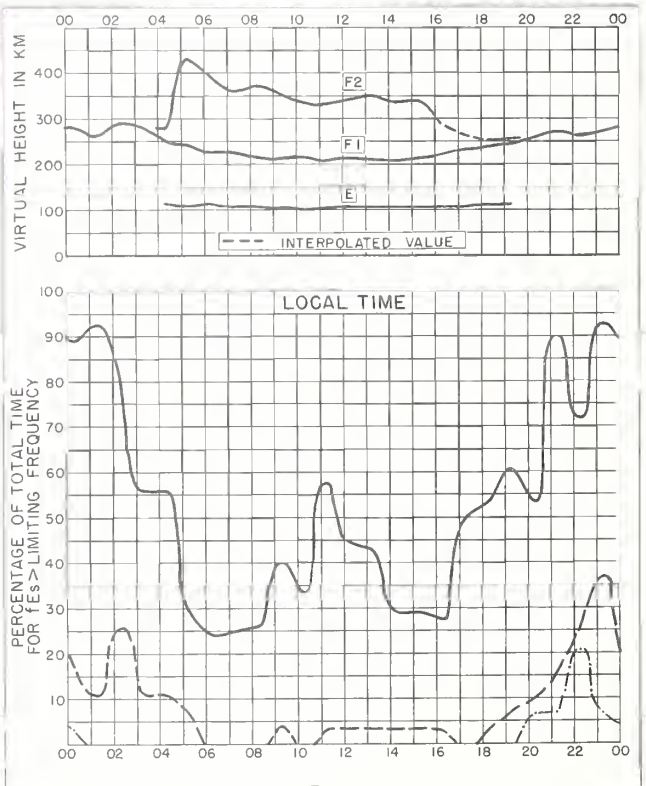


Fig. 36. TROMSO, NORWAY AUGUST 1955

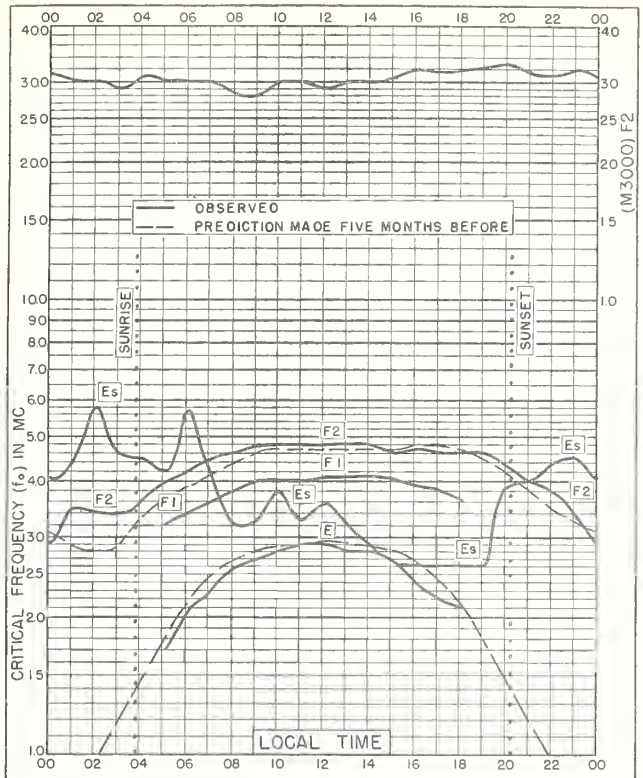


Fig. 37. FAIRBANKS, ALASKA
64.9°N, 147.8°W AUGUST 1955

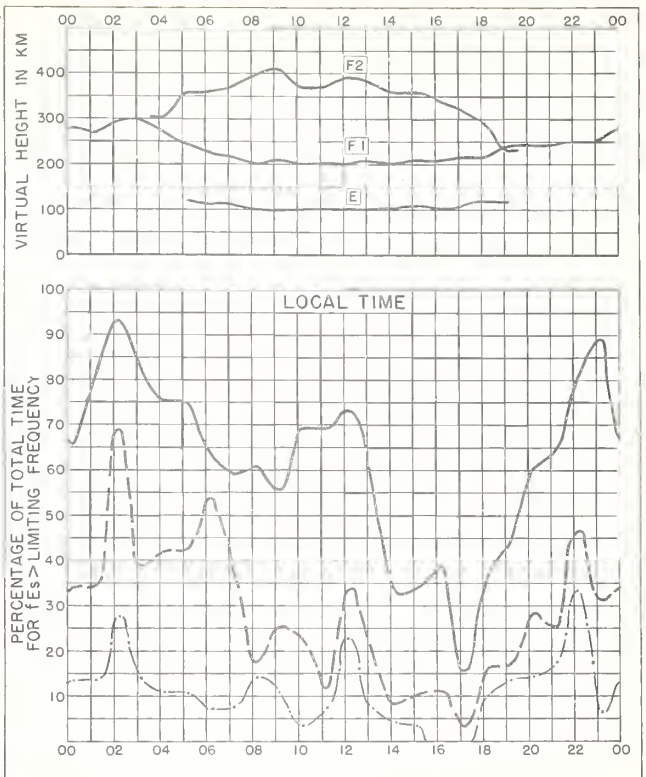


Fig. 38. FAIRBANKS, ALASKA AUGUST 1955

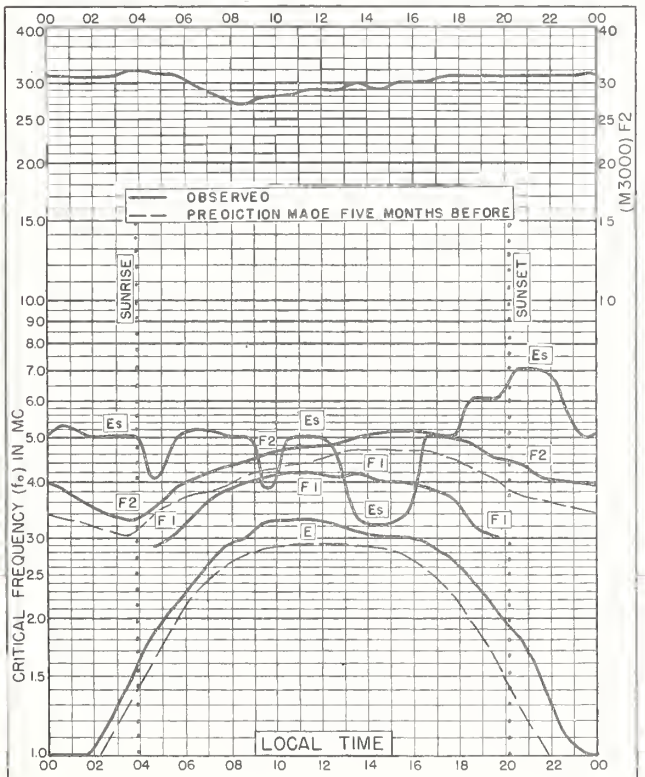


Fig. 39. BAKER LAKE, CANADA
64.3°N, 96.0°W AUGUST 1955

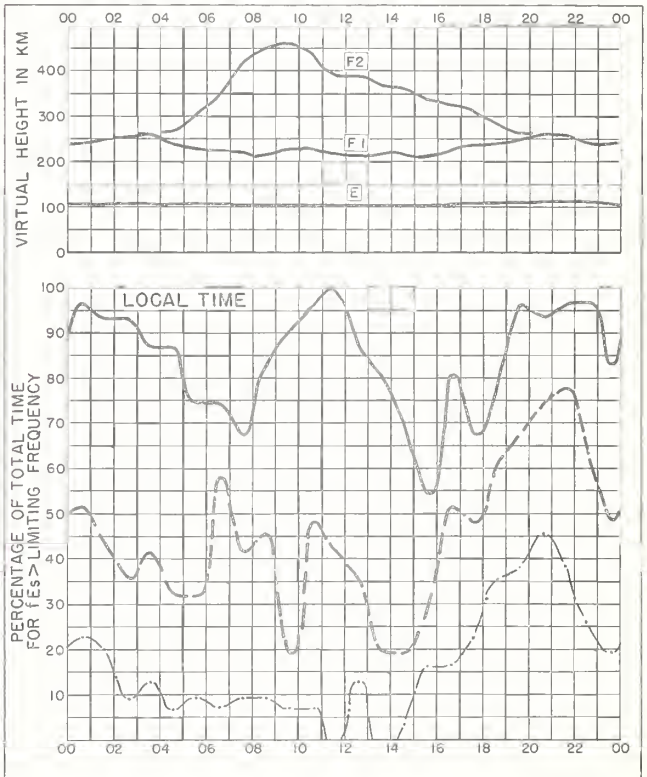


Fig. 40. BAKER LAKE, CANADA AUGUST 1955

NBS 490

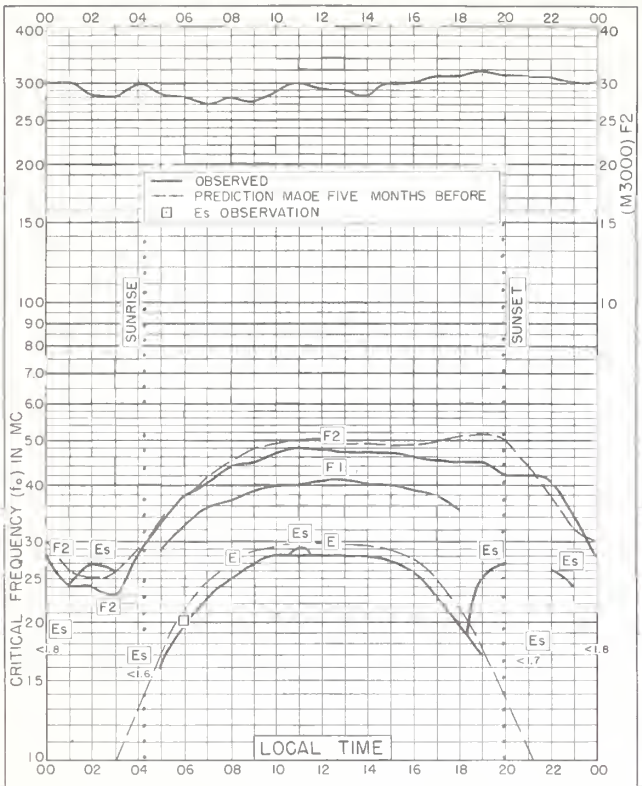


Fig. 41. ANCHORAGE, ALASKA
61.2°N, 149.9°W AUGUST 1955

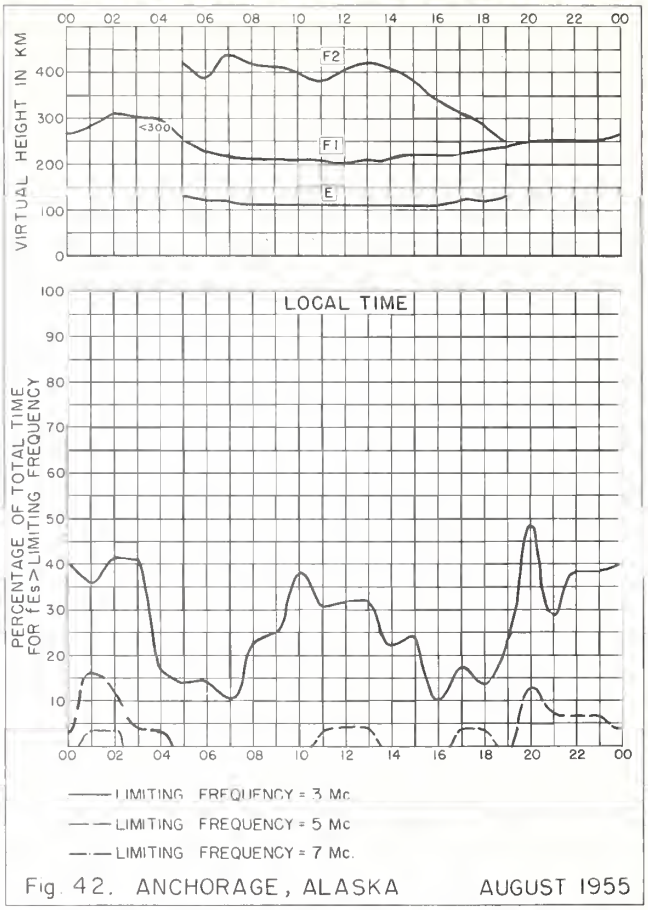


Fig. 42. ANCHORAGE, ALASKA AUGUST 1955

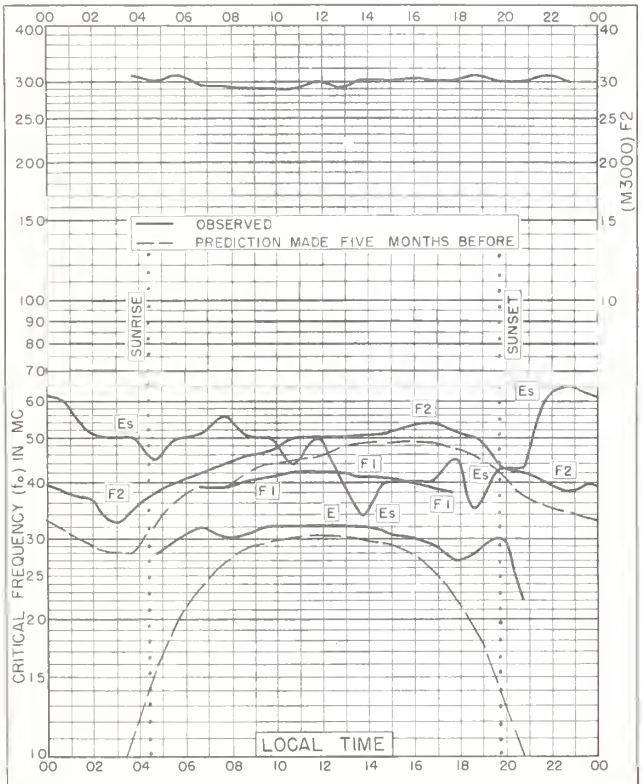


Fig. 43. CHURCHILL, CANADA
58.8°N, 94.2°W AUGUST 1955

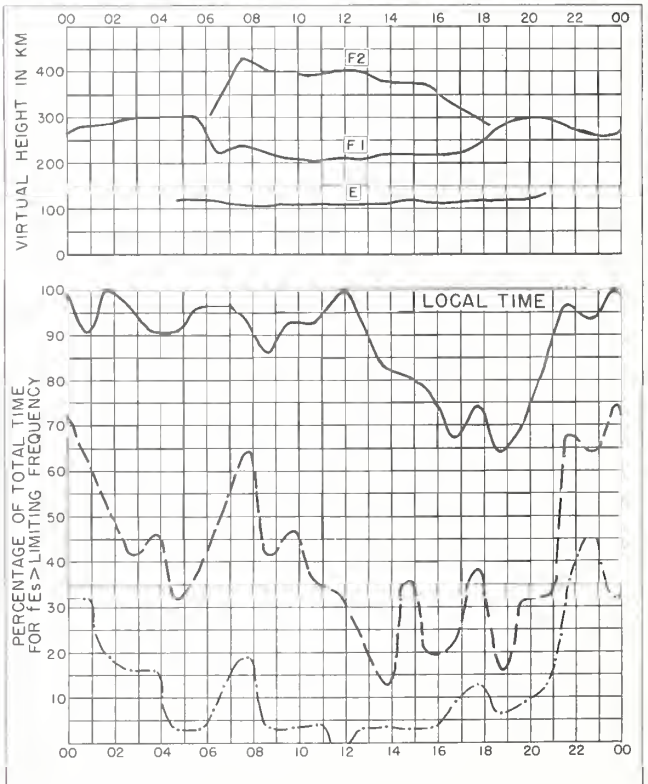


Fig. 44. CHURCHILL, CANADA AUGUST 1955

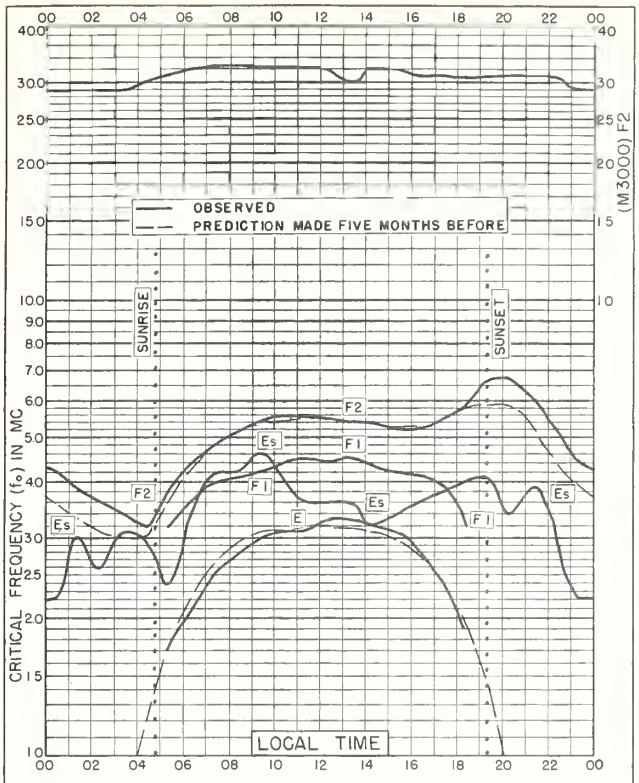


Fig. 45. De BILT, HOLLAND
52.1°N, 5.2°E AUGUST 1955

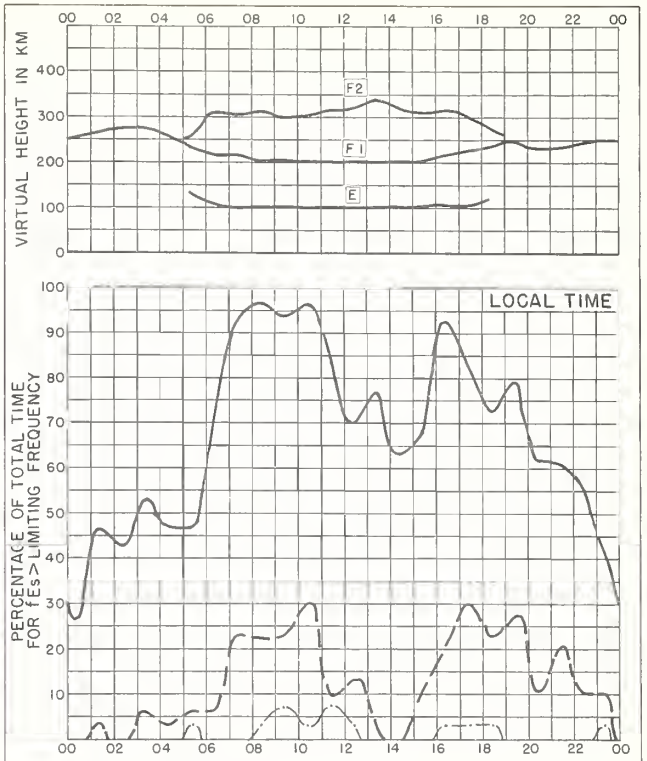


Fig. 46. De BILT, HOLLAND AUGUST 1955

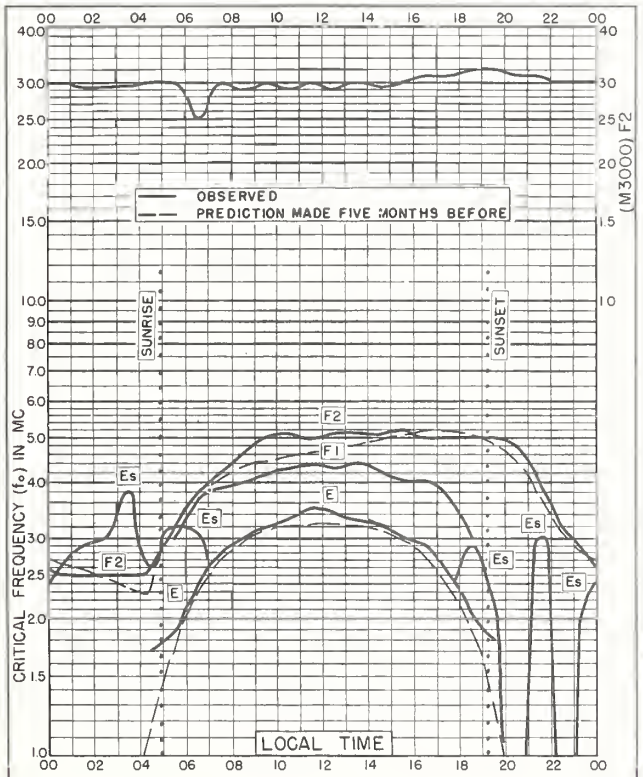


Fig. 47. WINNIPEG, CANADA
49.9°N, 97.4° W AUGUST 1955

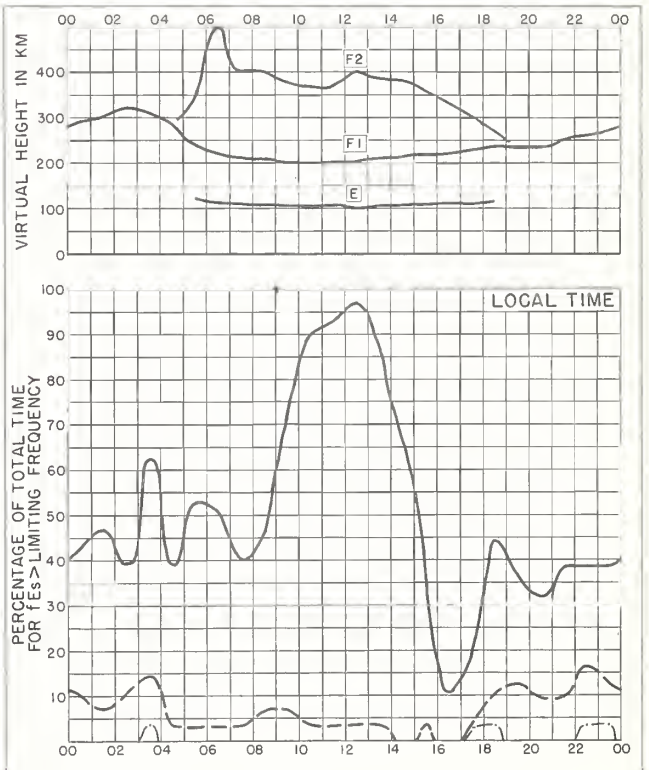


Fig. 48. WINNIPEG, CANADA AUGUST 1955

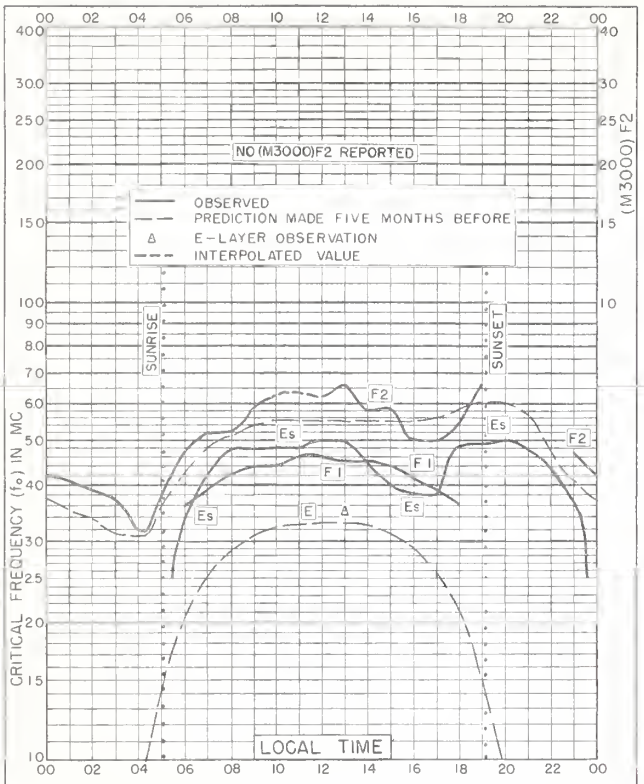


Fig. 49. GRAZ, AUSTRIA
47.1°N, 15.5°E AUGUST 1955

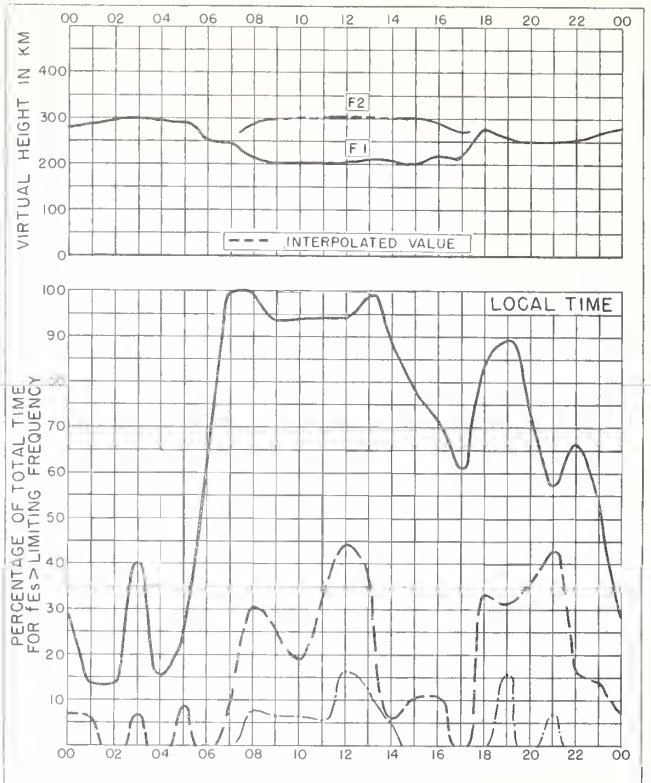


Fig. 50. GRAZ, AUSTRIA AUGUST 1955

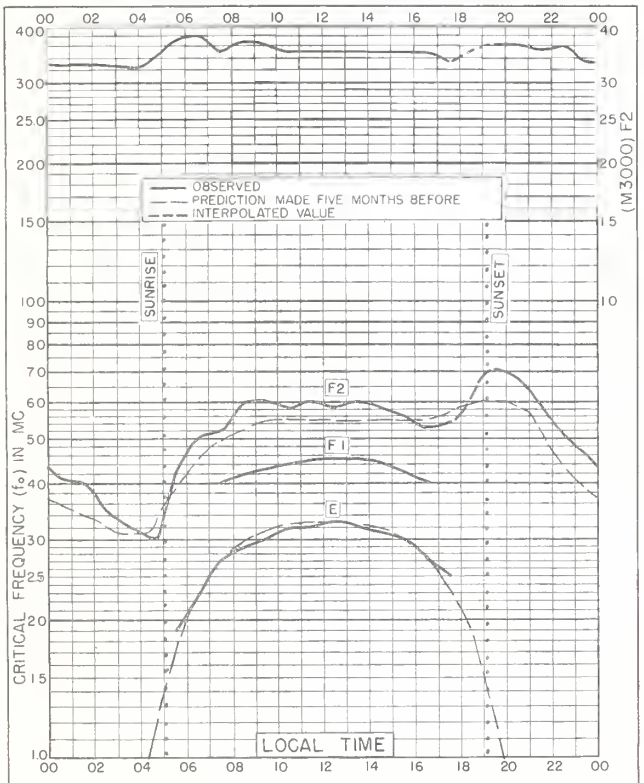


Fig. 51. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E AUGUST 1955

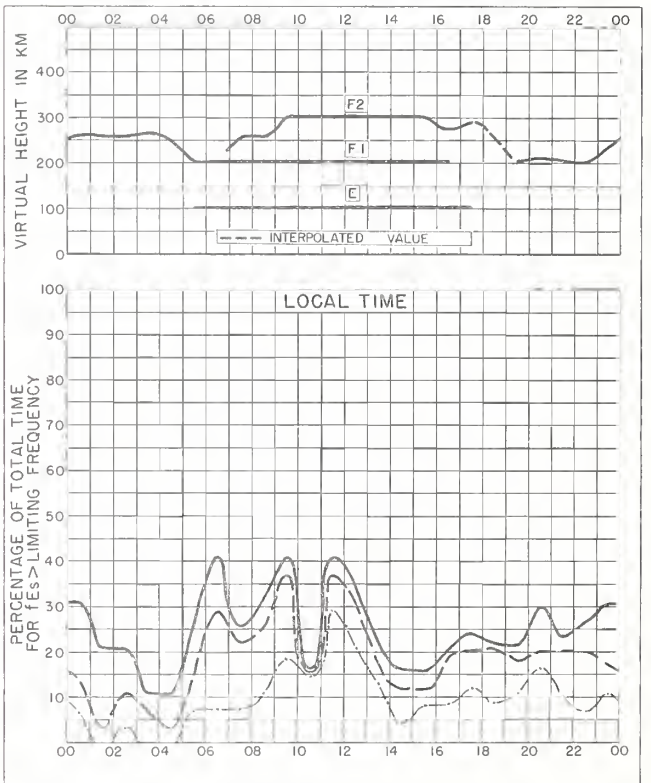


Fig. 52. SCHWARZENBURG, SWITZERLAND AUGUST 1955

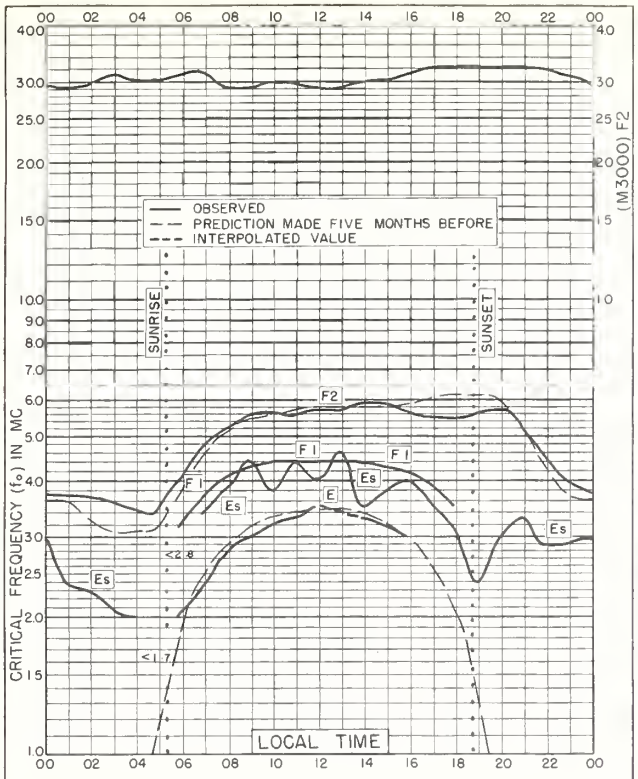
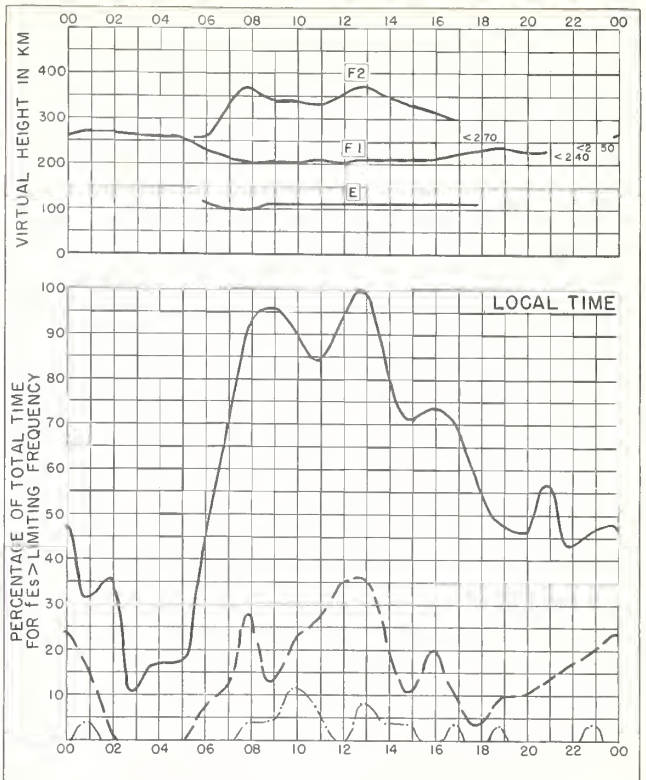


Fig. 53. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W AUGUST 1955



AUGUST 1955

Fig. 54. SAN FRANCISCO, CALIFORNIA

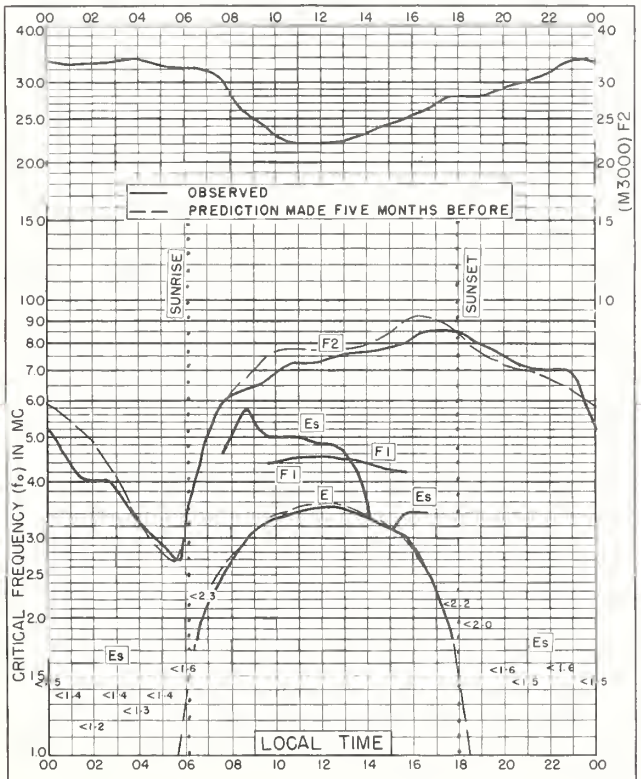


Fig. 55. TALARA, PERU
4.6°S, 81.3°W AUGUST 1955

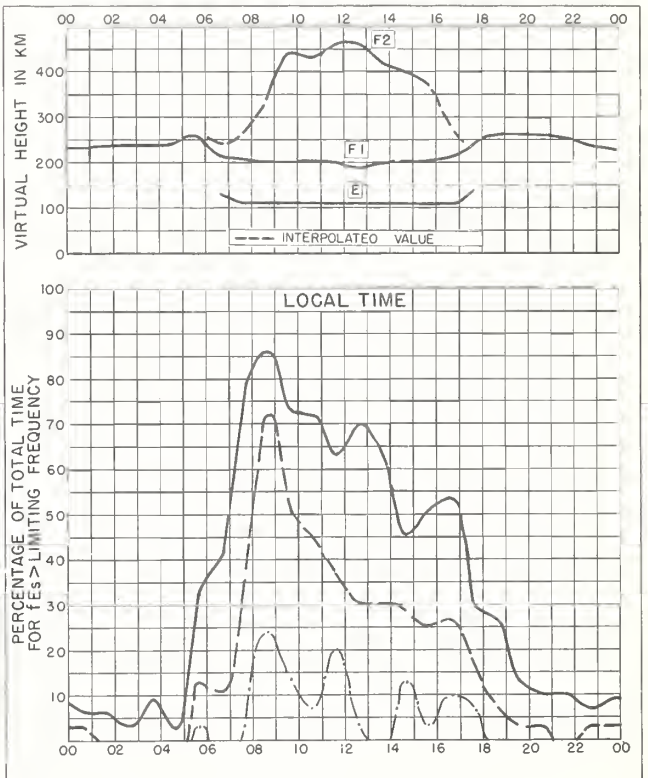


Fig. 56. TALARA, PERU AUGUST 1955

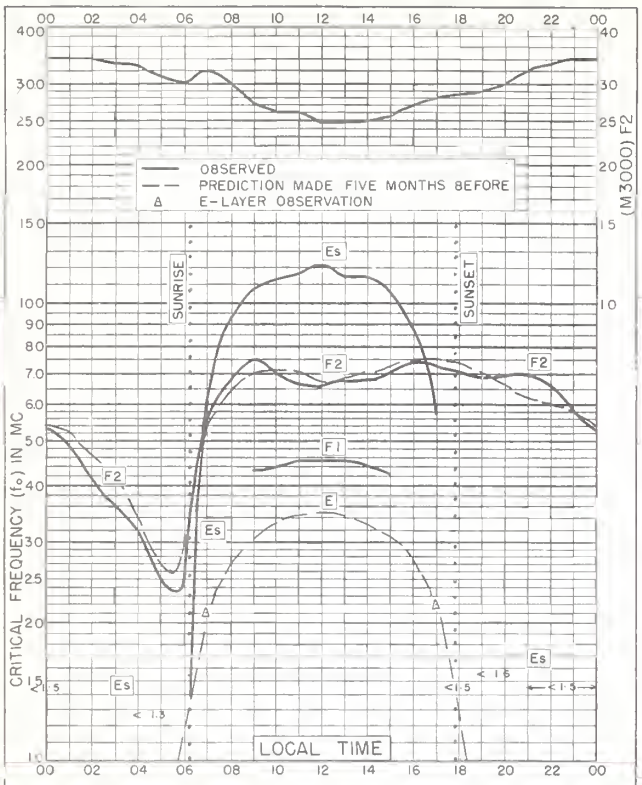


Fig. 57. HUANCAYO, PERU
12.0°S, 75.3°W AUGUST 1955

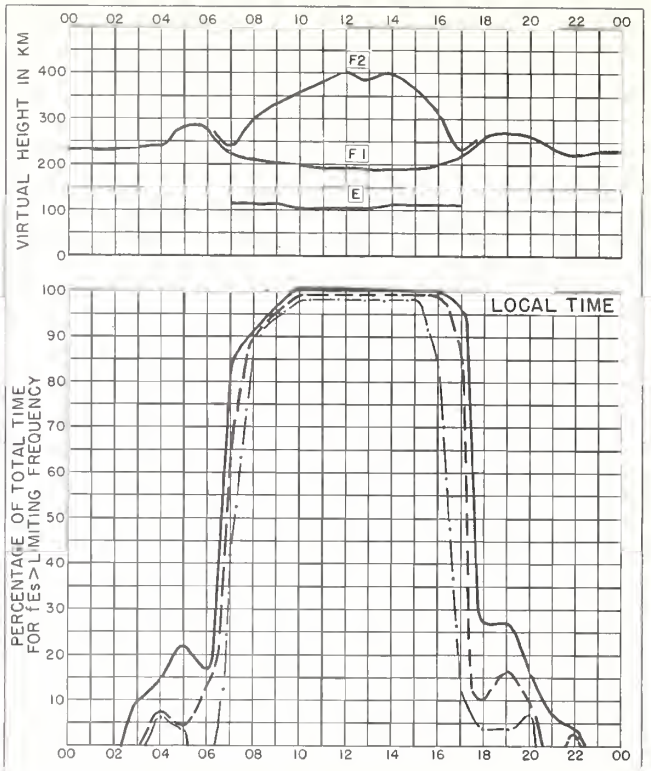


Fig. 58. HUANCAYO, PERU AUGUST 1955

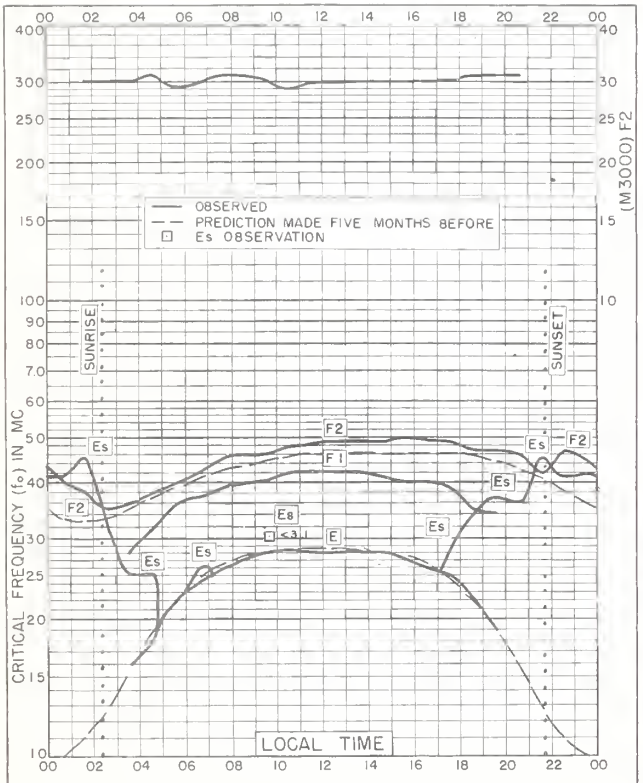


Fig. 59. REYKJAVIK, ICELAND
64.1°N, 21.8°W JULY 1955

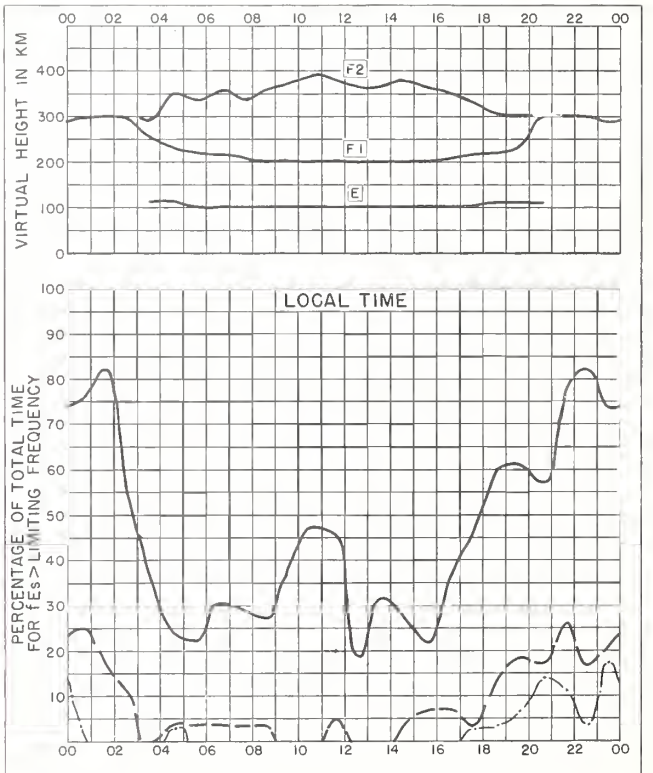


Fig. 60. REYKJAVIK, ICELAND JULY 1955

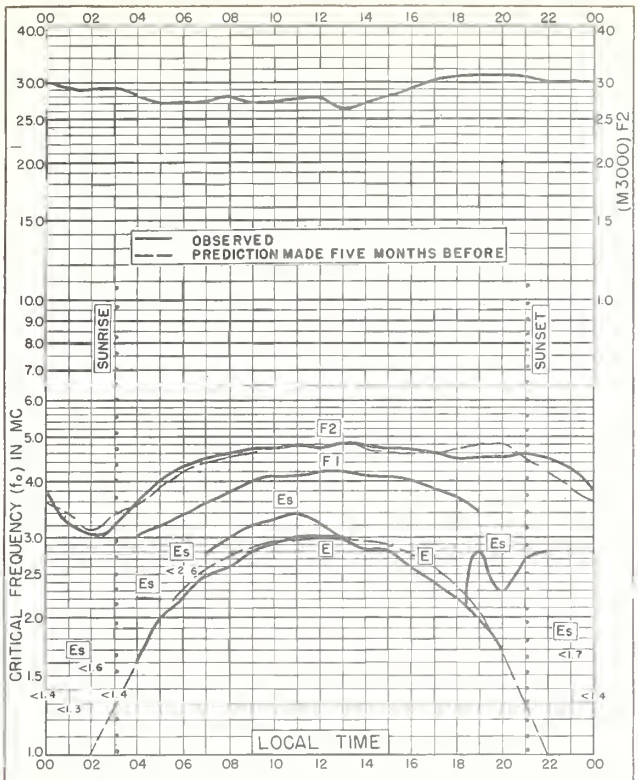


Fig. 61. ANCHORAGE, ALASKA
61.2°N, 149.9° W JULY 1955

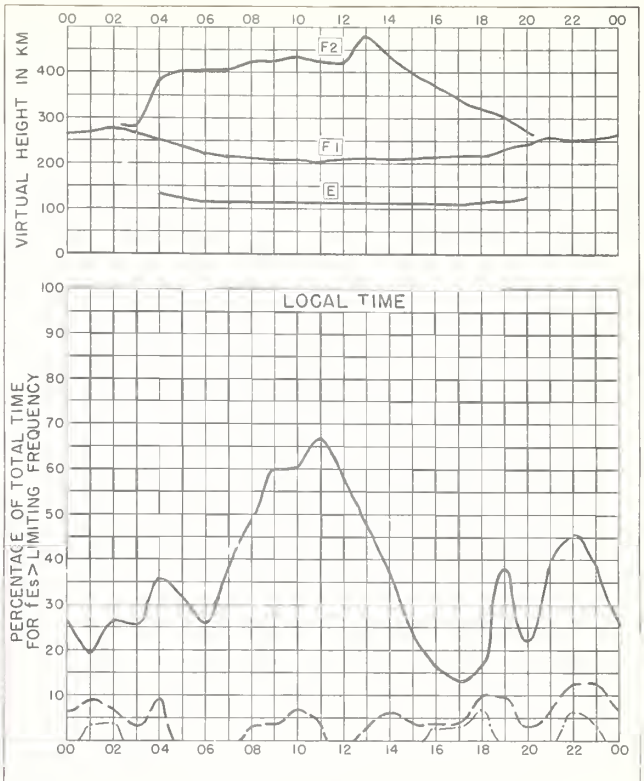


Fig. 62. ANCHORAGE, ALASKA JULY 1955

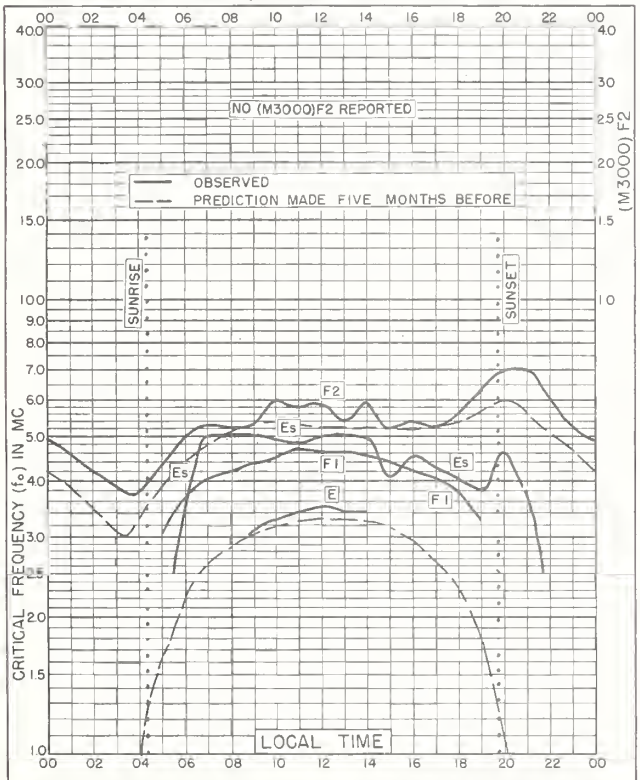


Fig. 63. GRAZ, AUSTRIA
47.1°N, 15.5°E JULY 1955

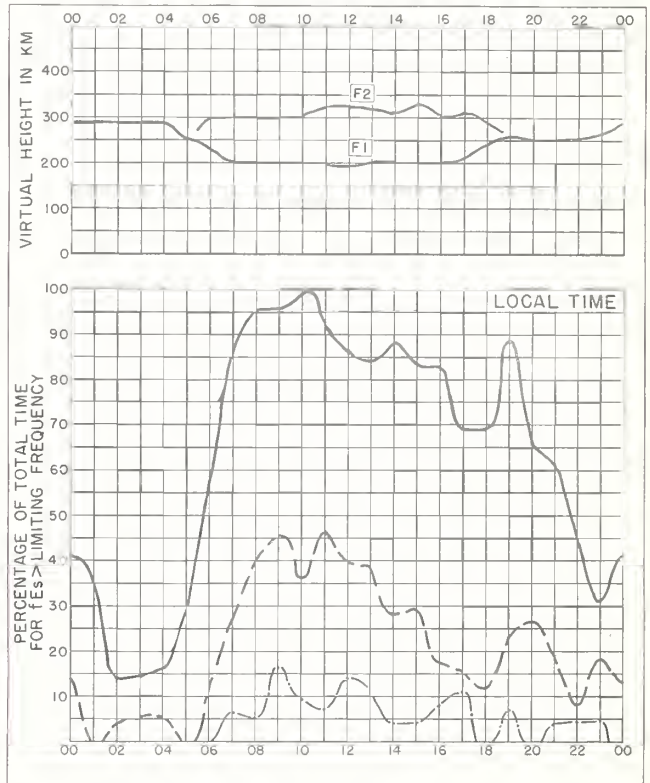


Fig. 64. GRAZ, AUSTRIA JULY 1955

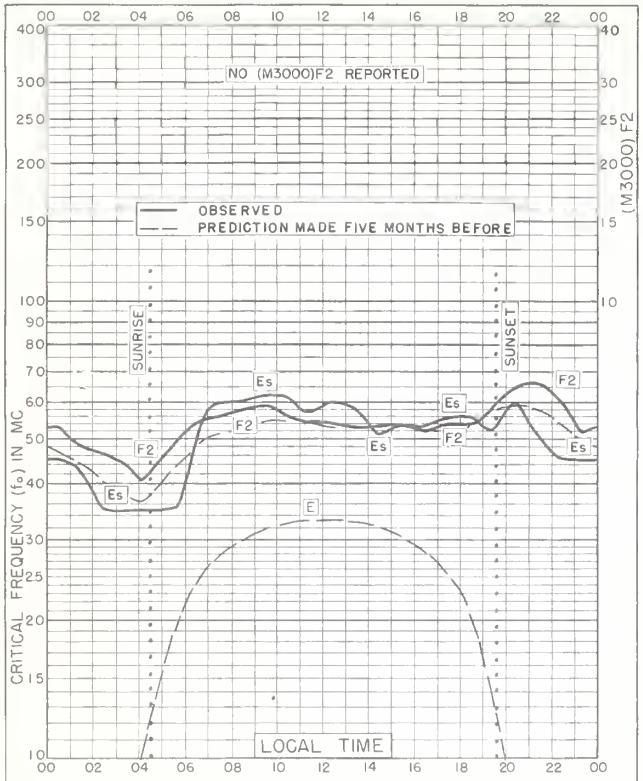


Fig. 65. WAKKANAI, JAPAN
45.4°N, 141.7°E JULY 1955

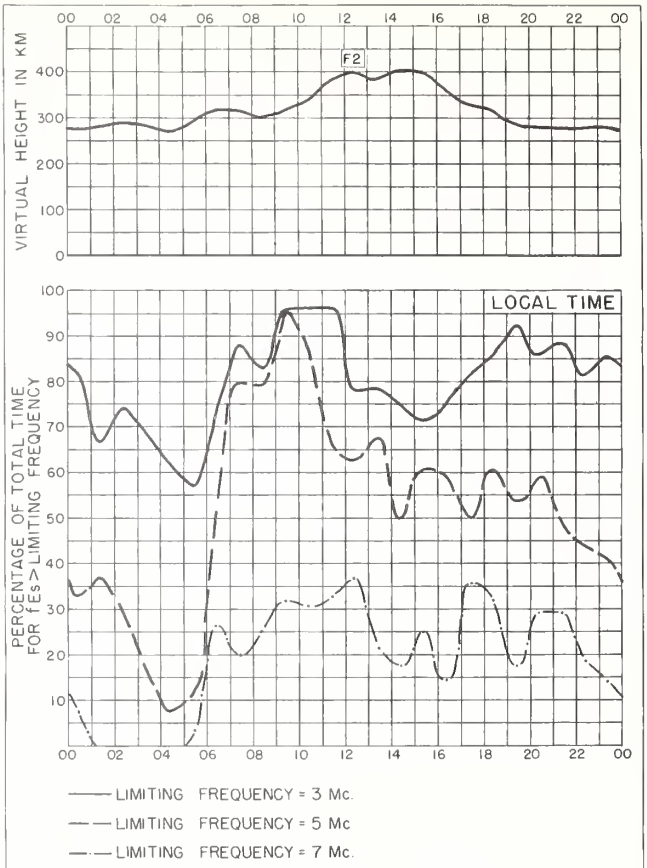


Fig. 66. WAKKANAI, JAPAN JULY 1955

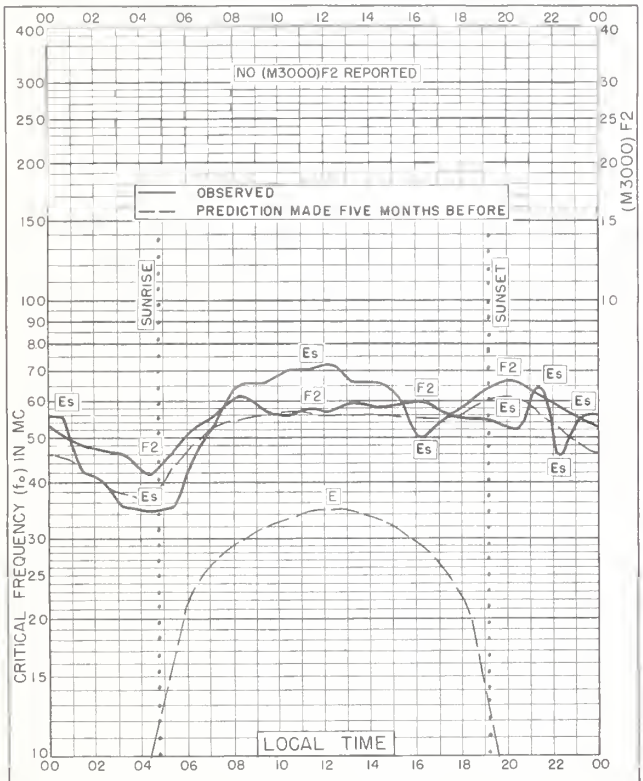


Fig. 67. AKITA, JAPAN
39.7°N, 140.1°E JULY 1955

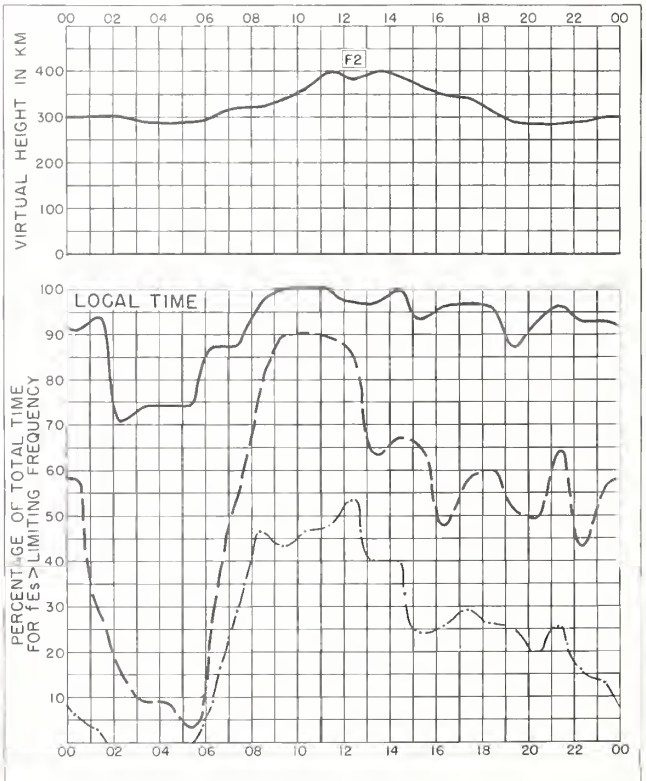


Fig. 68. AKITA, JAPAN JULY 1955

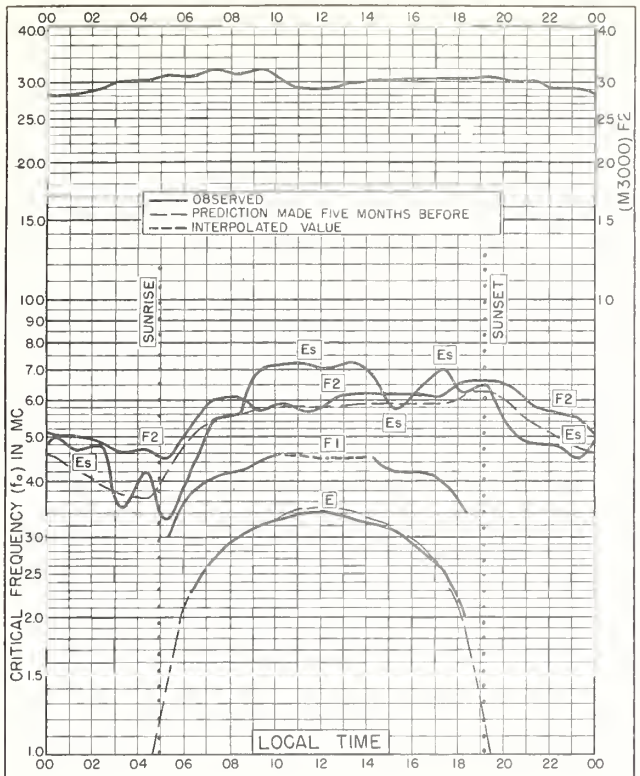


Fig. 69. TOKYO, JAPAN
35.7°N, 139.5°E JULY 1955

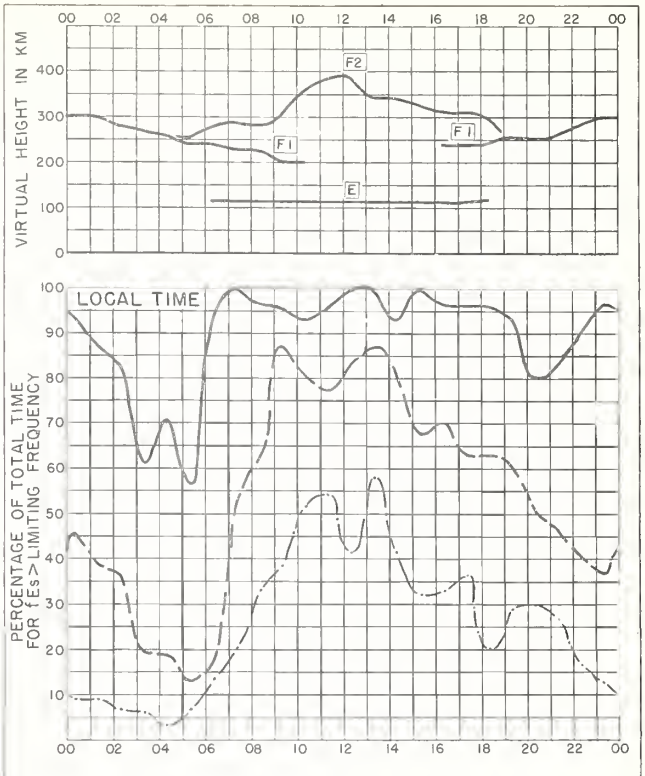


Fig. 70. TOKYO, JAPAN JULY 1955

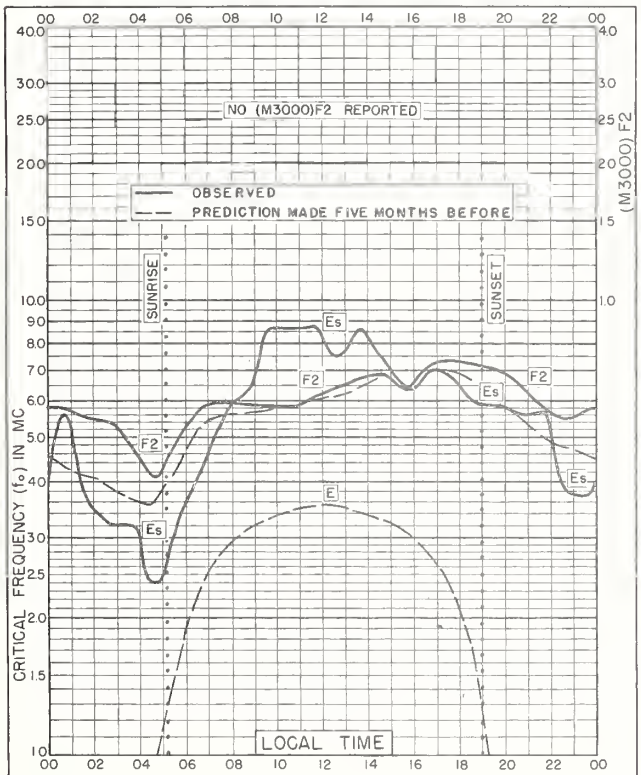


Fig. 71. YAMAGAWA, JAPAN
31.2°N, 130.6°E JULY 1955

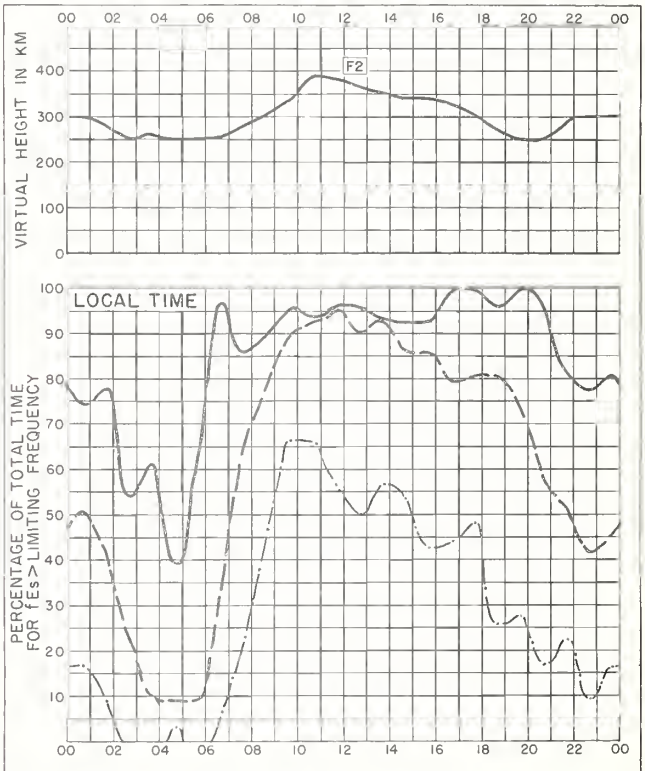


Fig. 72. YAMAGAWA, JAPAN JULY 1955

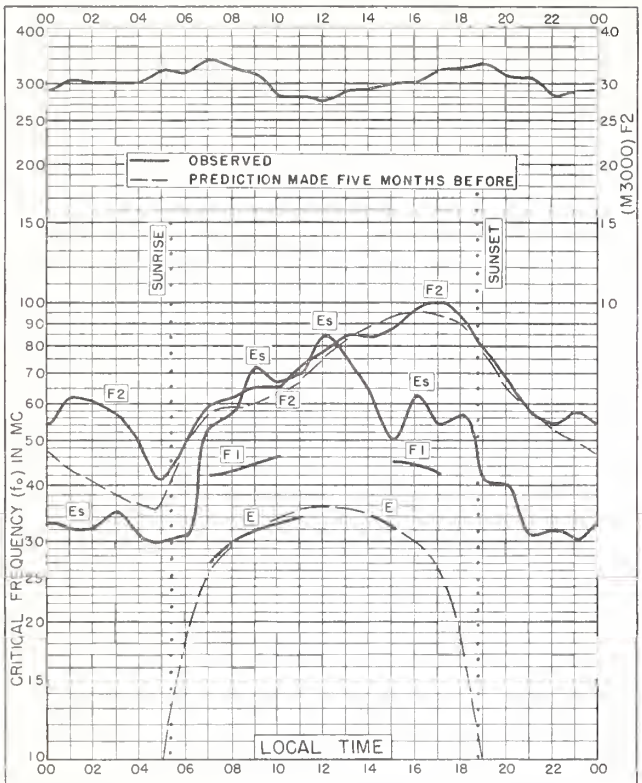


Fig. 73. FORMOSA, CHINA
25.0°N, 121.5°E JULY 1955

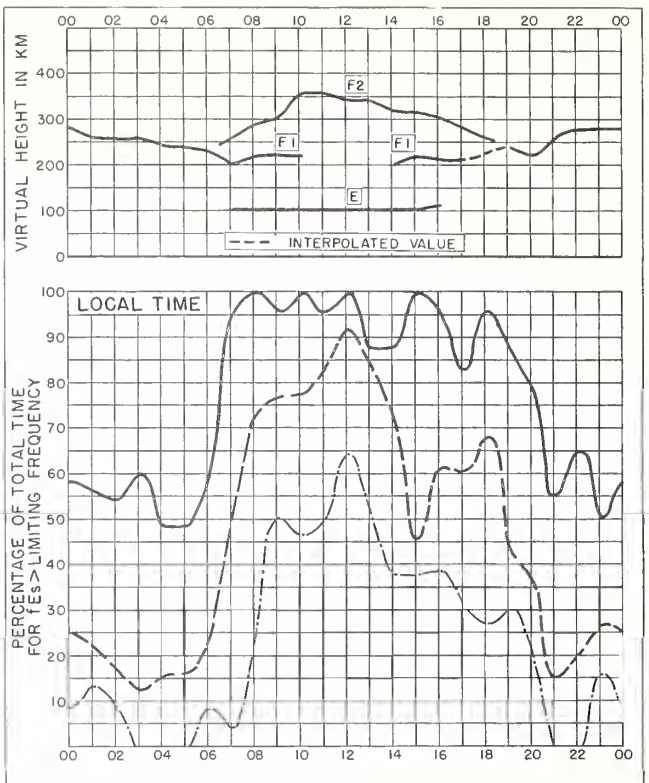


Fig. 74. FORMOSA, CHINA JULY 1955

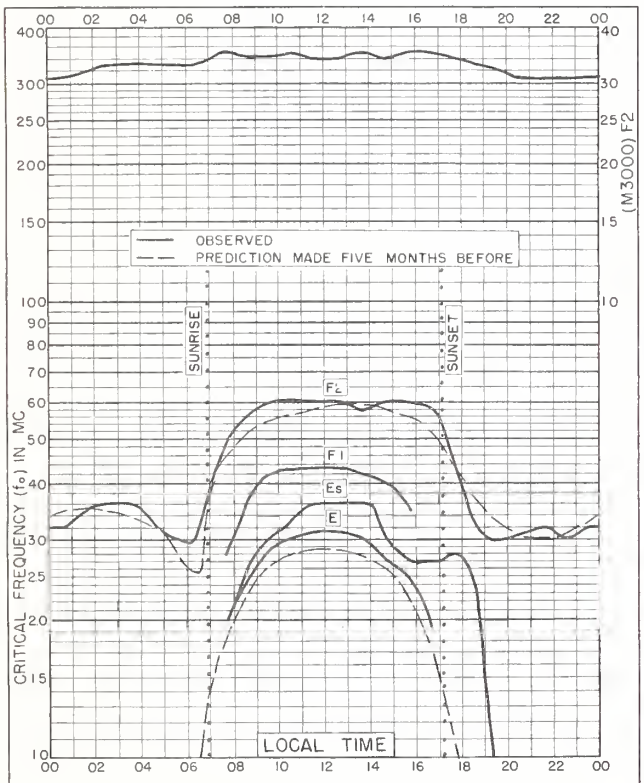


Fig. 75. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E JULY 1955

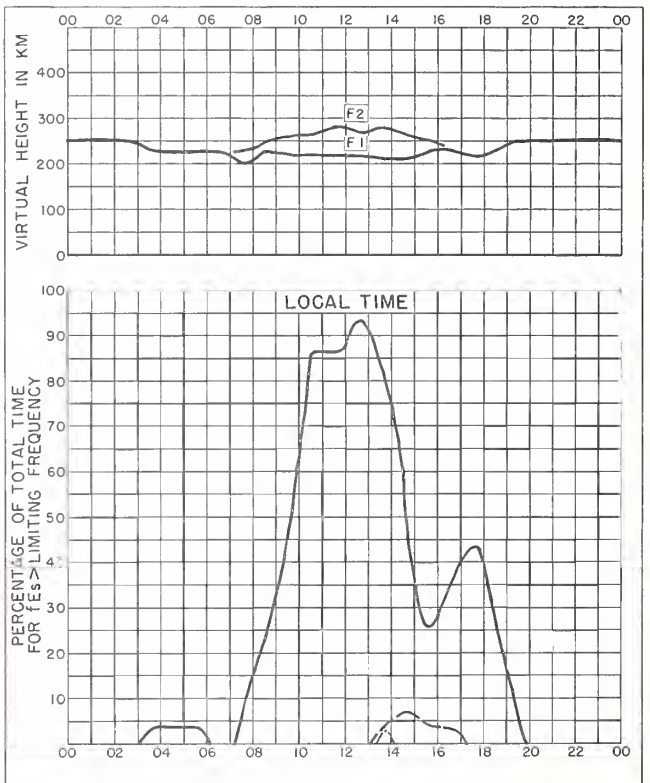


Fig. 76. WATHEROO, W. AUSTRALIA JULY 1955

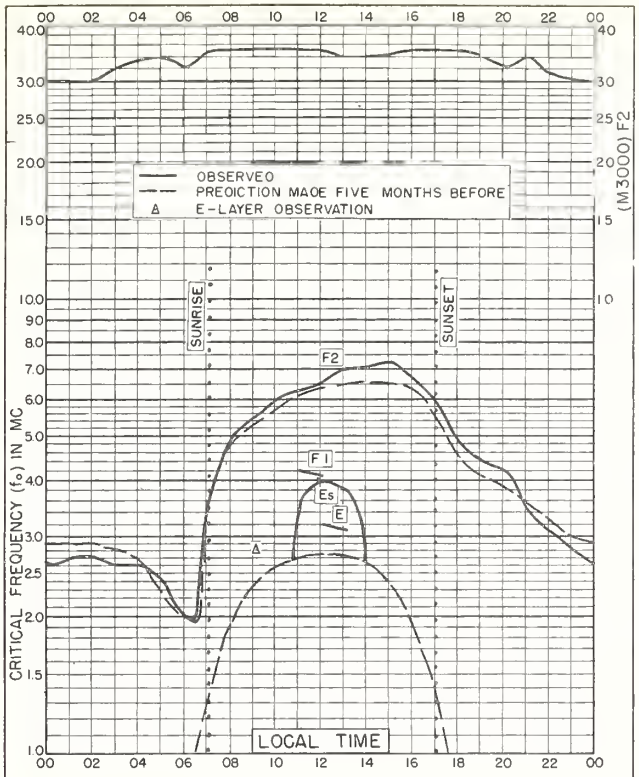


Fig. 77. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W JULY 1955

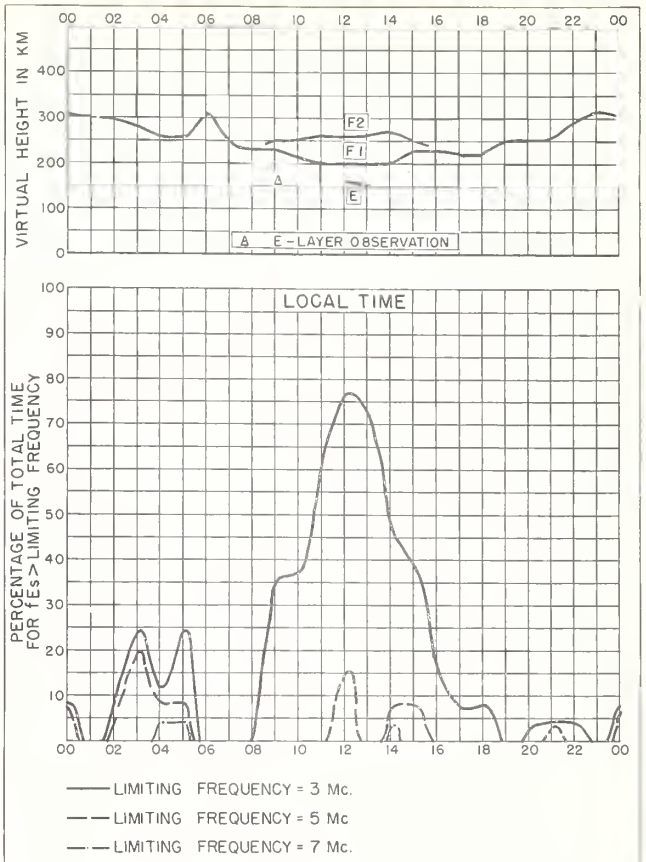


Fig. 78. BUENOS AIRES, ARGENTINA JULY 1955

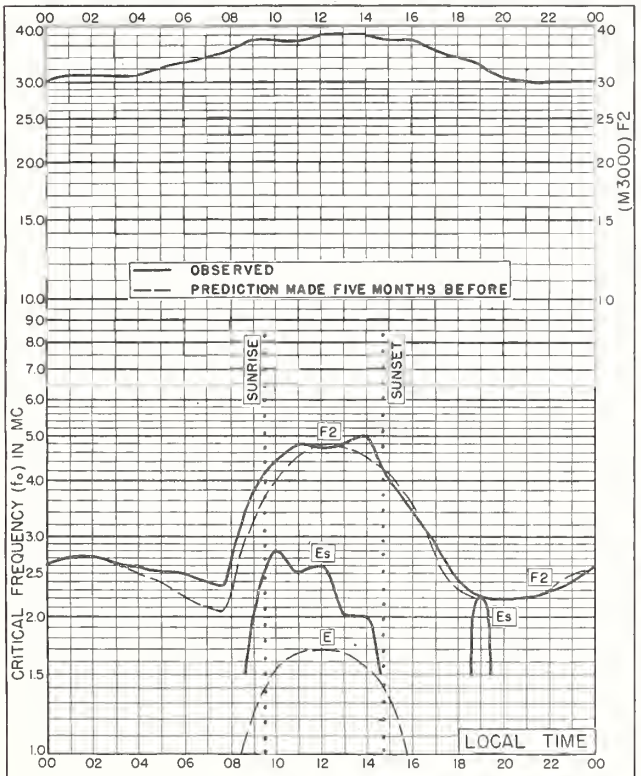


Fig. 79. DECEPCION I.
63.0°S, 60.7°W JULY 1955

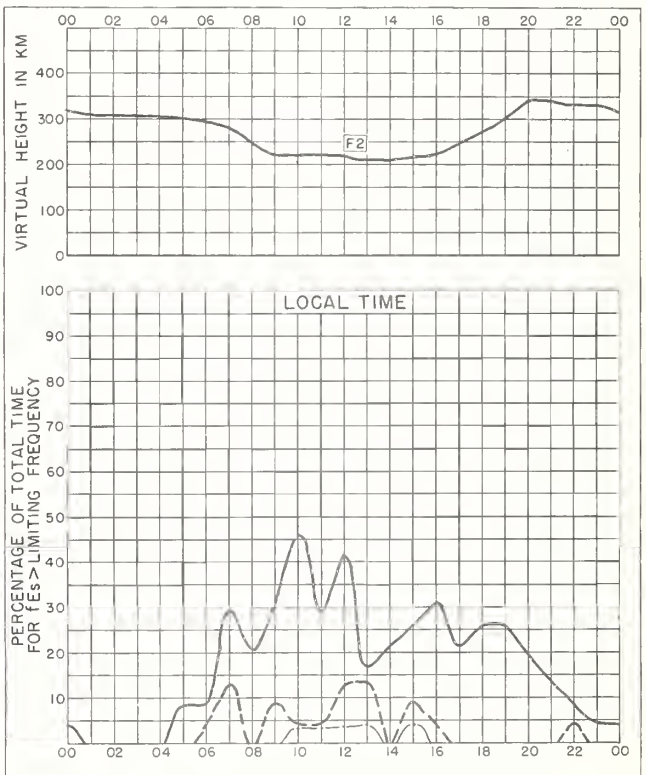


Fig. 80. DECEPCION I. JULY 1955

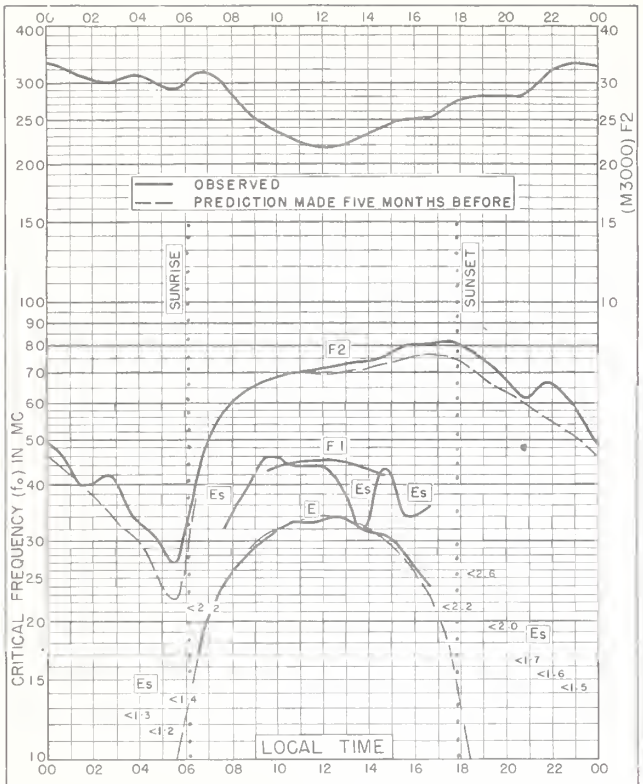


Fig. 81. TALARA, PERU
4.6°S, 81.3°W JUNE 1955

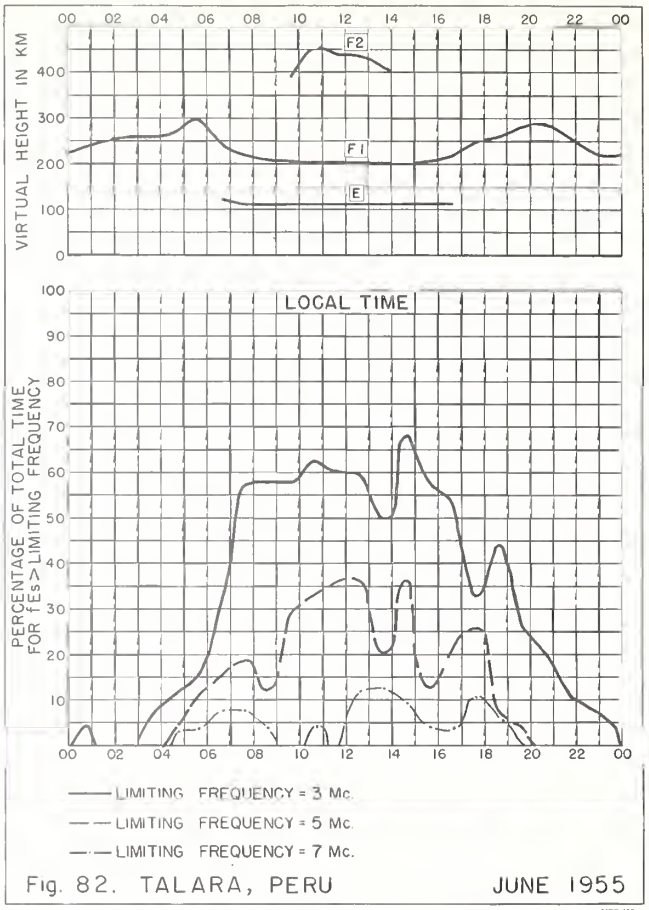


Fig. 82. TALARA, PERU JUNE 1955

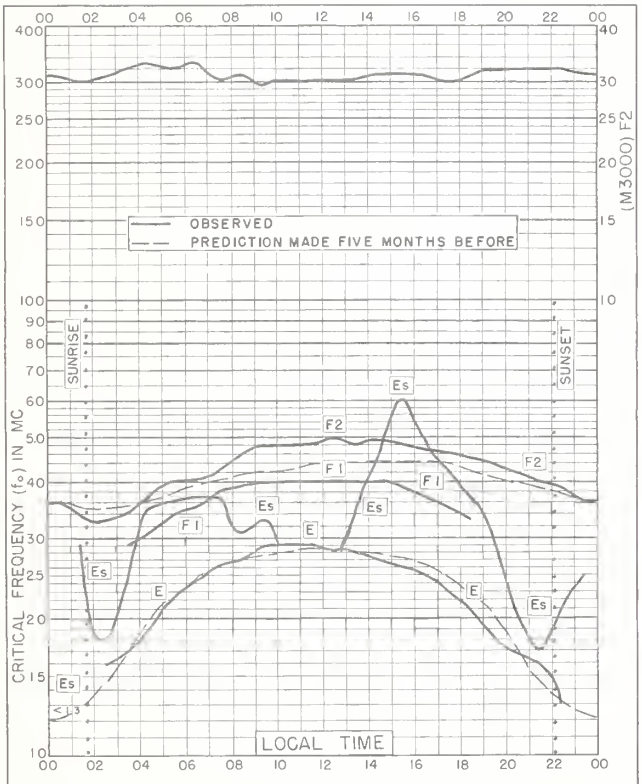


Fig. 83. GODHAVN, GREENLAND
69.2°N, 53.5°W MAY 1955

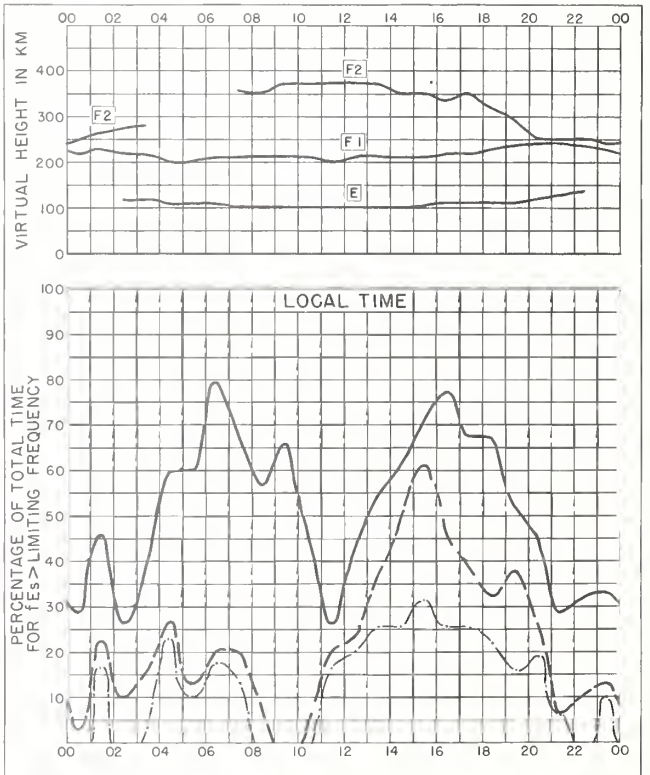


Fig. 84. GODHAVN, GREENLAND MAY 1955

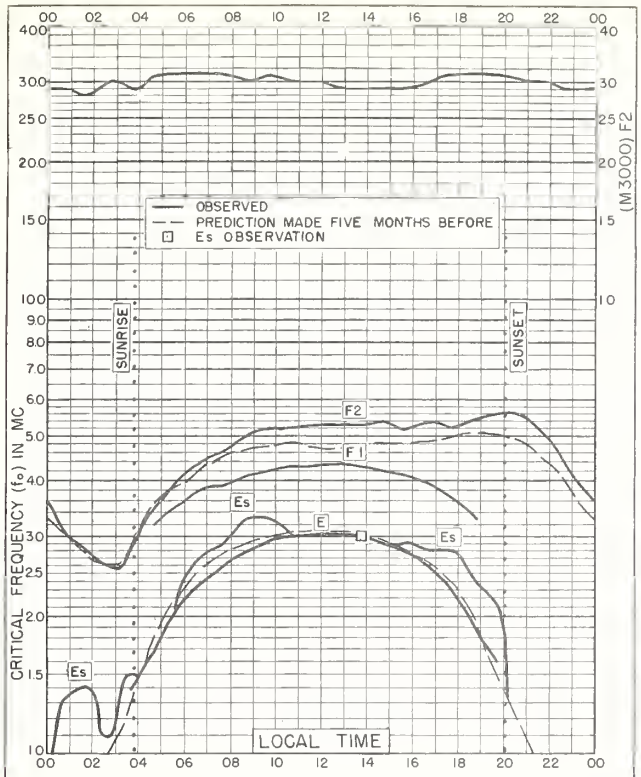


Fig. 85. INVERNESS, SCOTLAND
57.4°N, 4.2°W MAY 1955

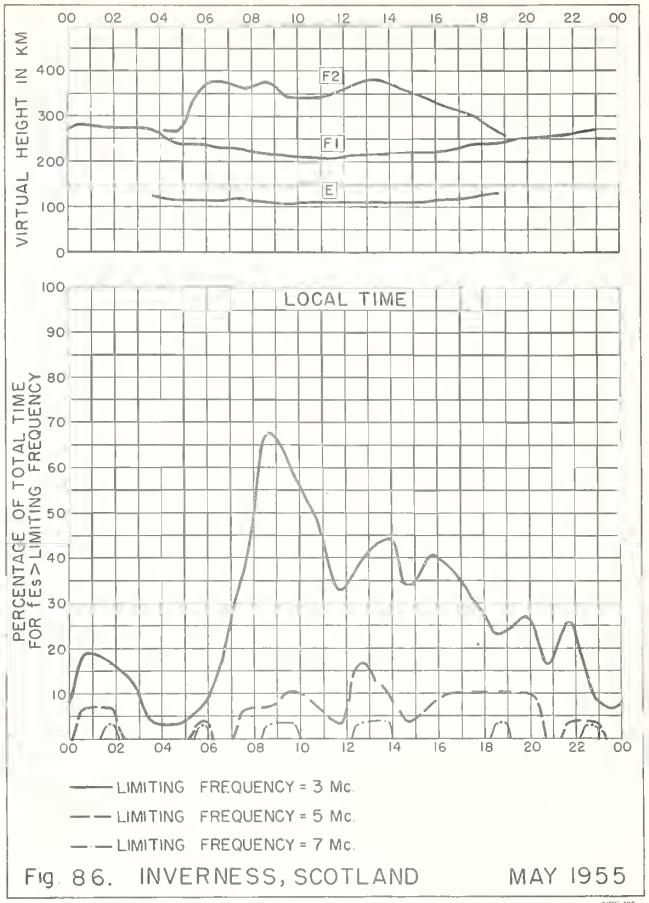


Fig. 86. INVERNESS, SCOTLAND MAY 1955

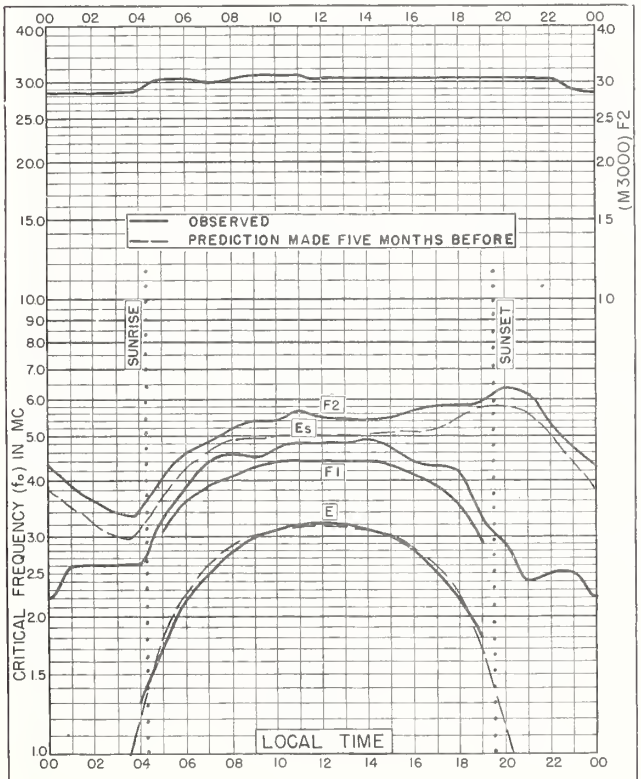


Fig. 87. SLOUGH, ENGLAND
51.5°N, 0.6°W MAY 1955

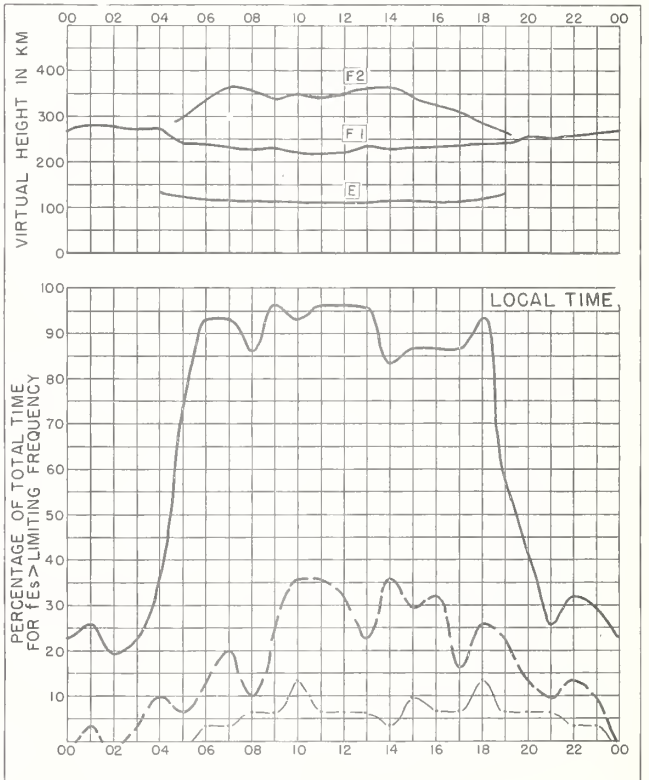


Fig. 88. SLOUGH, ENGLAND MAY 1955

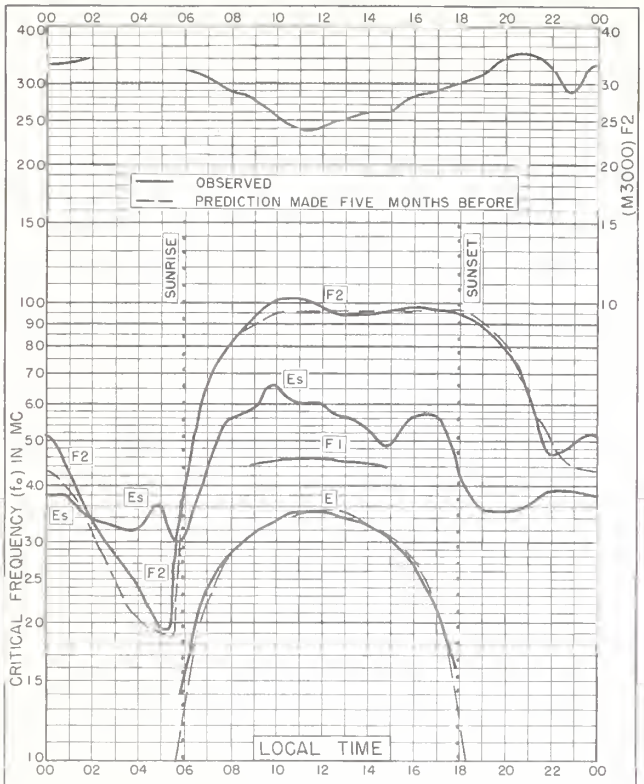


Fig. 89. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E MAY 1955

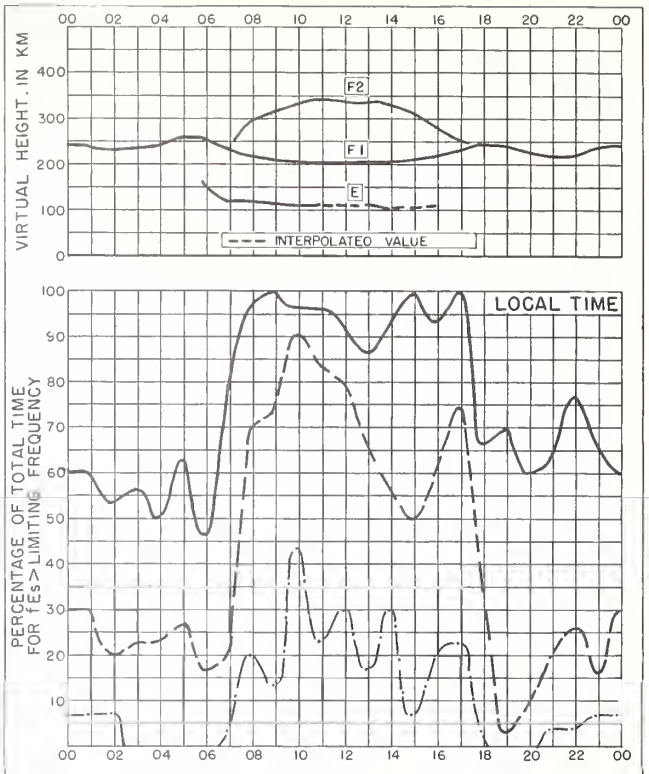


Fig. 90. SINGAPORE, BRITISH MALAYA MAY 1955

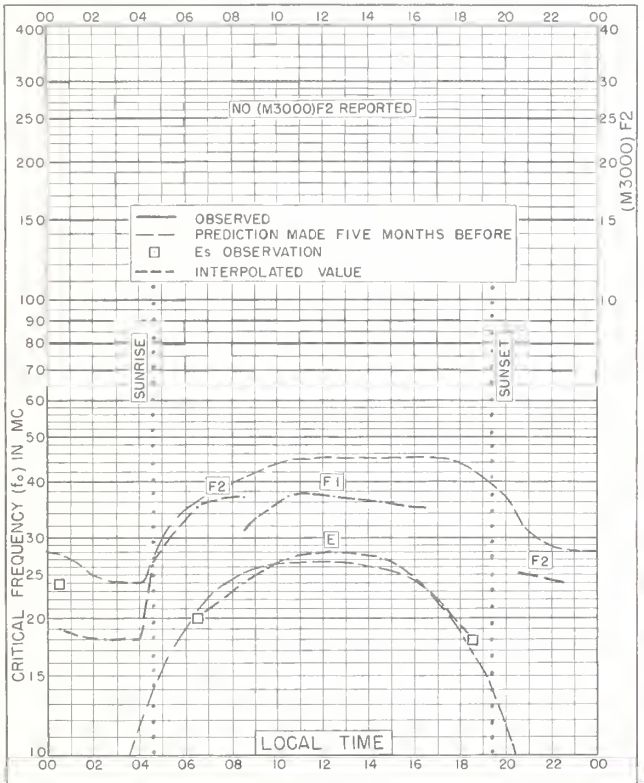


Fig. 91. LULEA, SWEDEN
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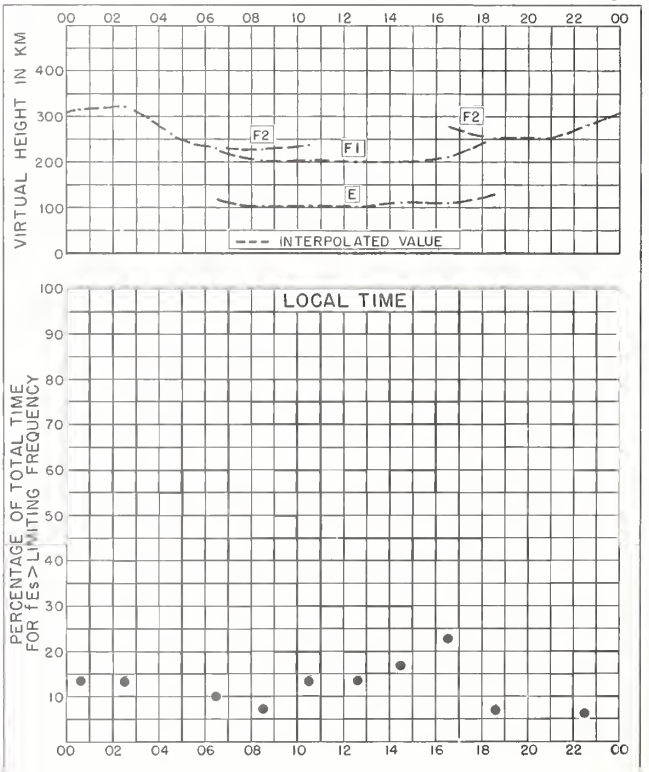

Fig. 92. LULEA, SWEDEN APRIL 1955

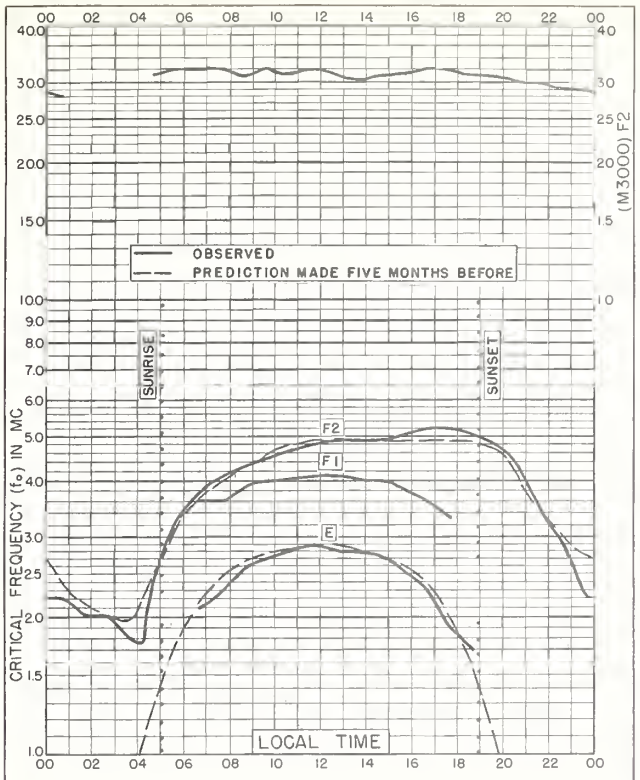

Fig. 93. INVERNESS, SCOTLAND
57.4°N, 4.2°W APRIL 1955

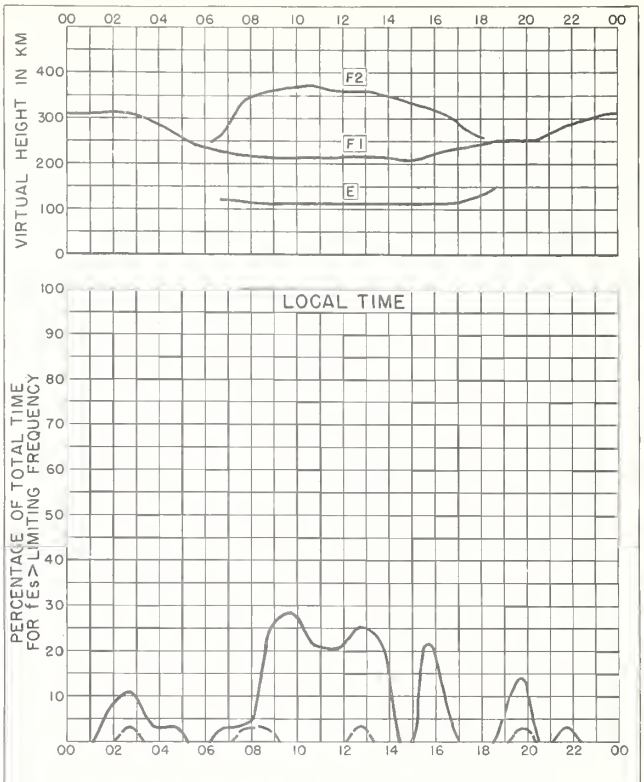

Fig. 94. INVERNESS, SCOTLAND APRIL 1955

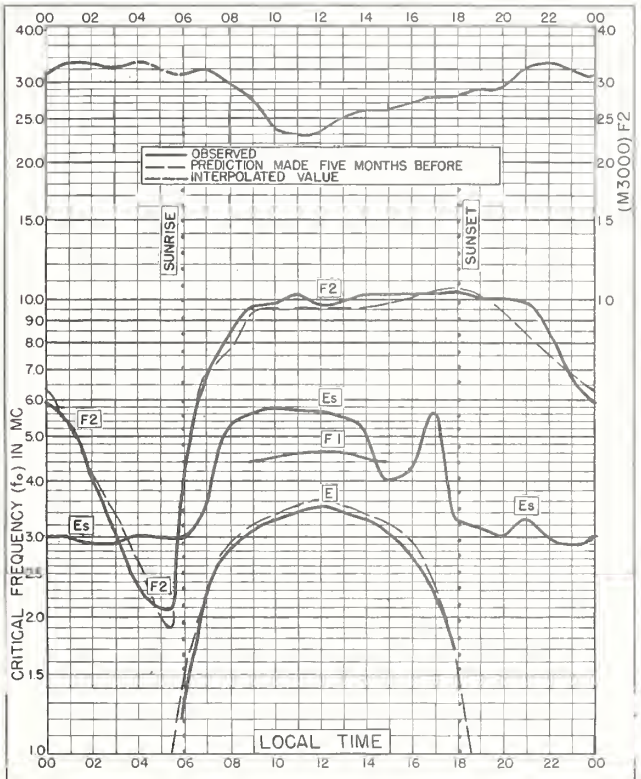

Fig. 95. SINGAPORE, BRITISH MALAYA
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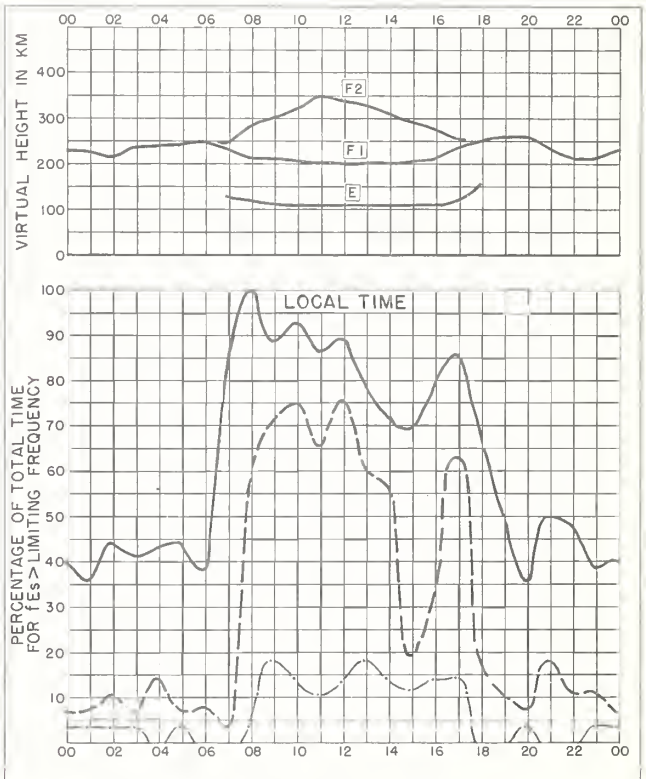

Fig. 96. SINGAPORE, BRITISH MALAYA APRIL 1955

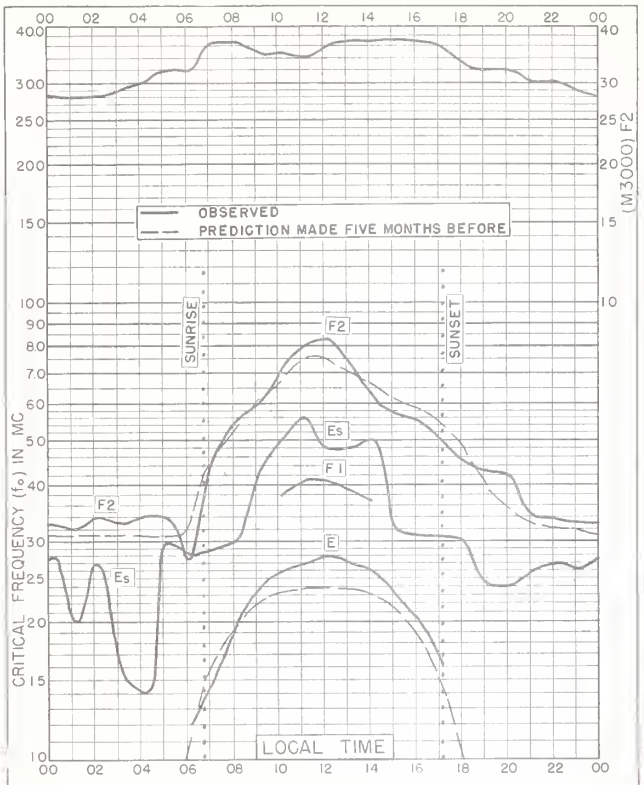

Fig. 97. FALKLAND IS.
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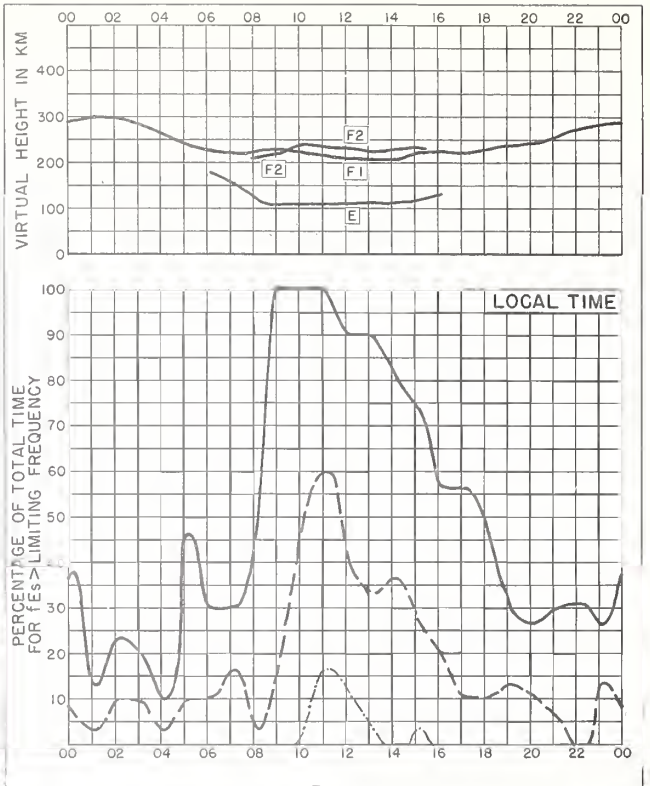

Fig. 98. FALKLAND IS. APRIL 1955

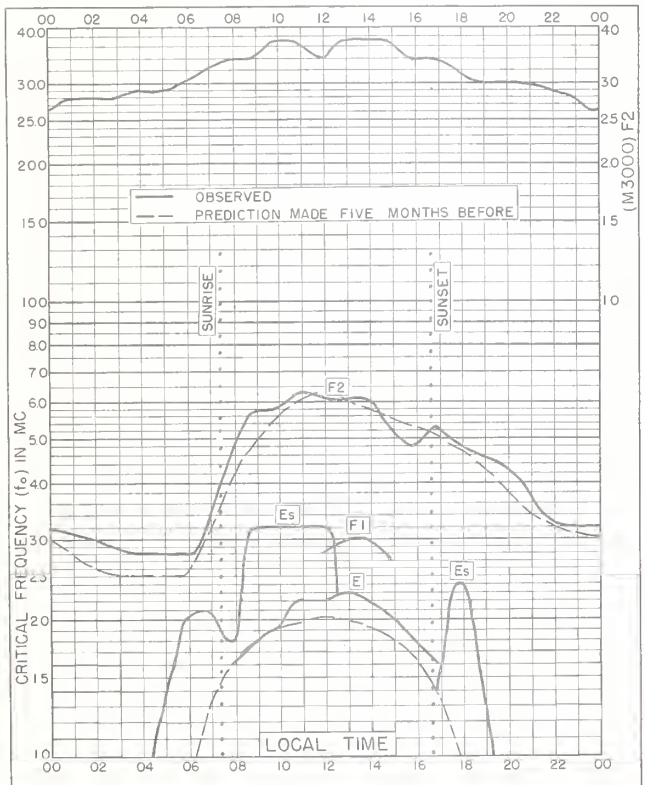

Fig. 99. PORT LOCKROY
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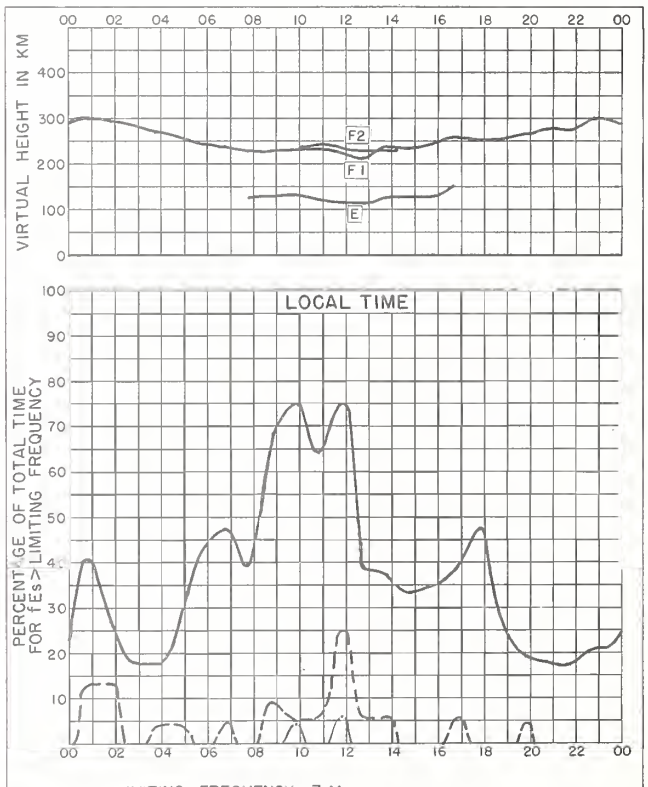

Fig. 100. PORT LOCKROY APRIL 1955

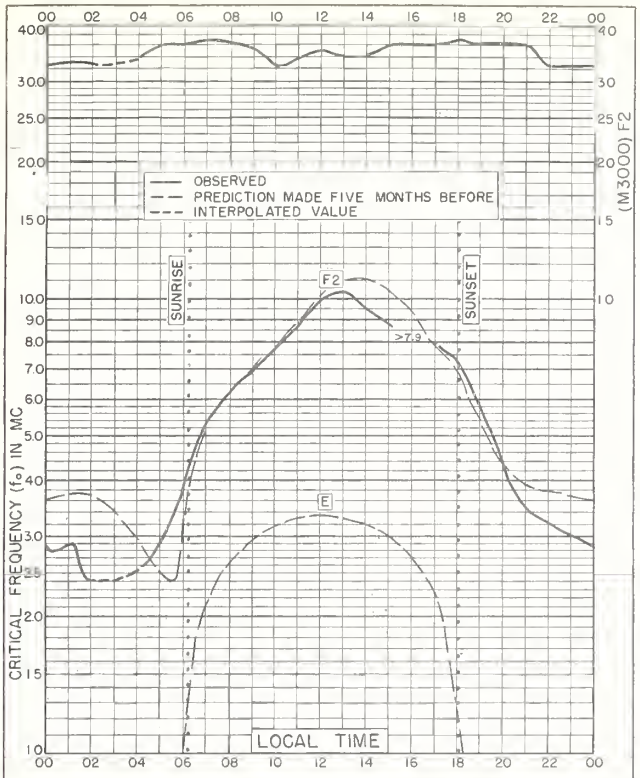

Fig. 101. DELHI, INDIA
28.6°N, 77.1°E MARCH 1955

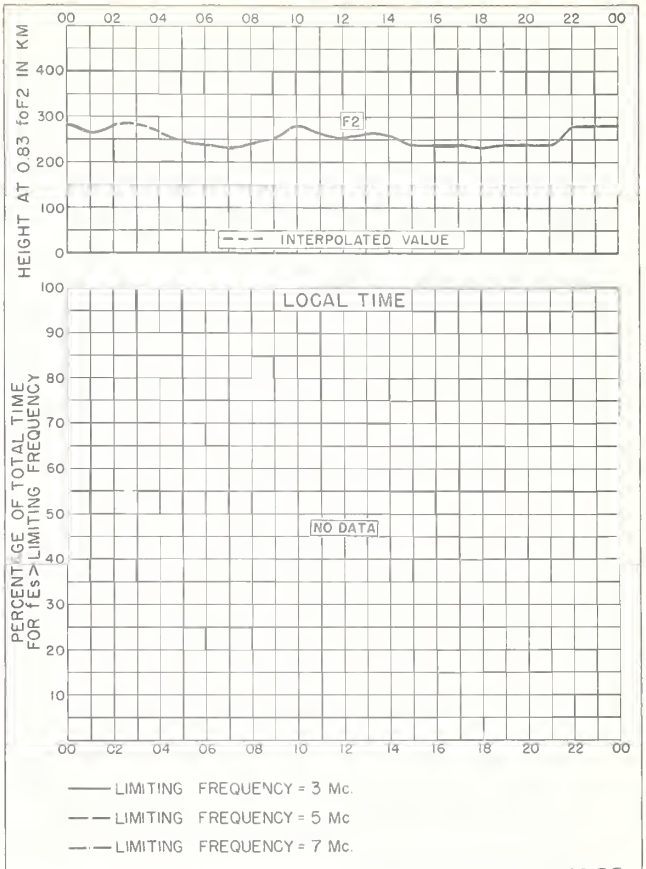

Fig. 102. DELHI, INDIA MARCH 1955

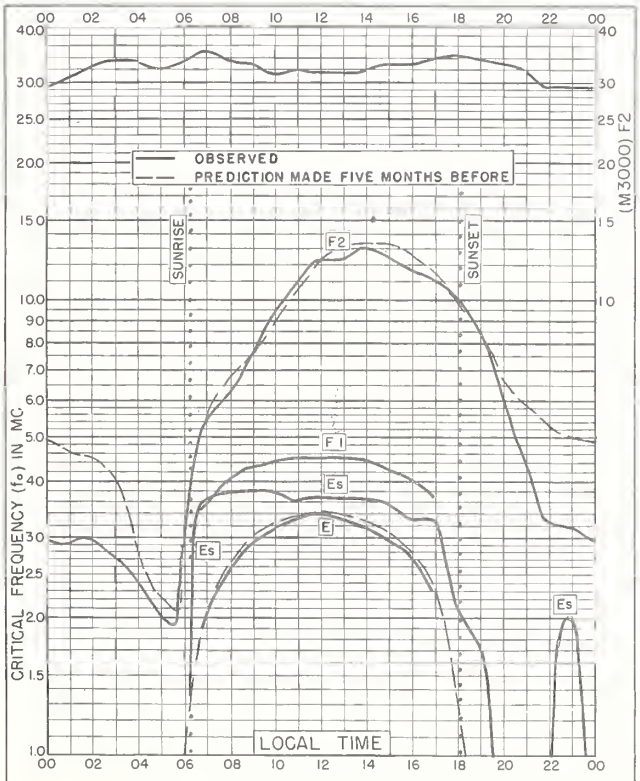

Fig. 103. AHMEDABAD, INDIA
23.0°N, 72.6°E MARCH 1955

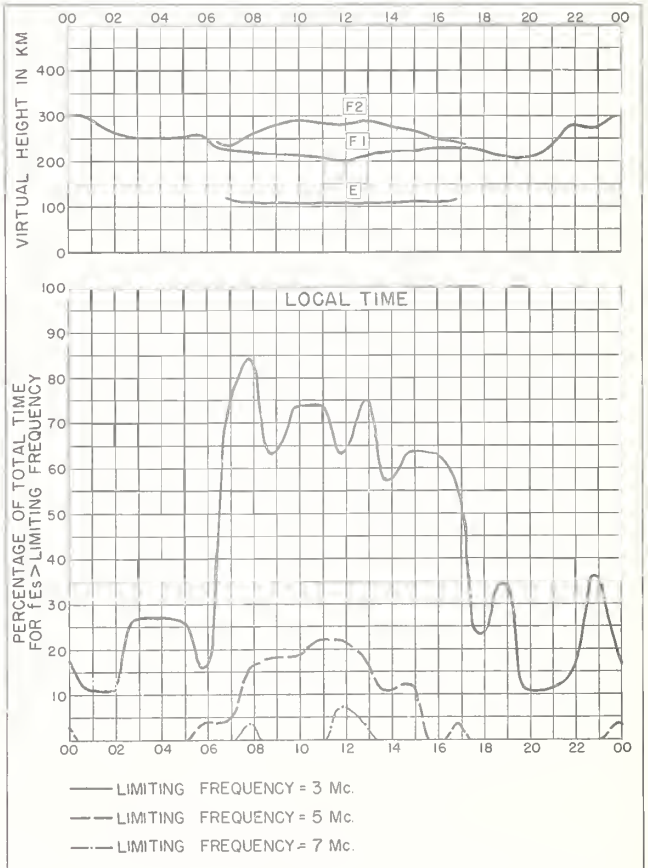

Fig. 104. AHMEDABAD, INDIA MARCH 1955

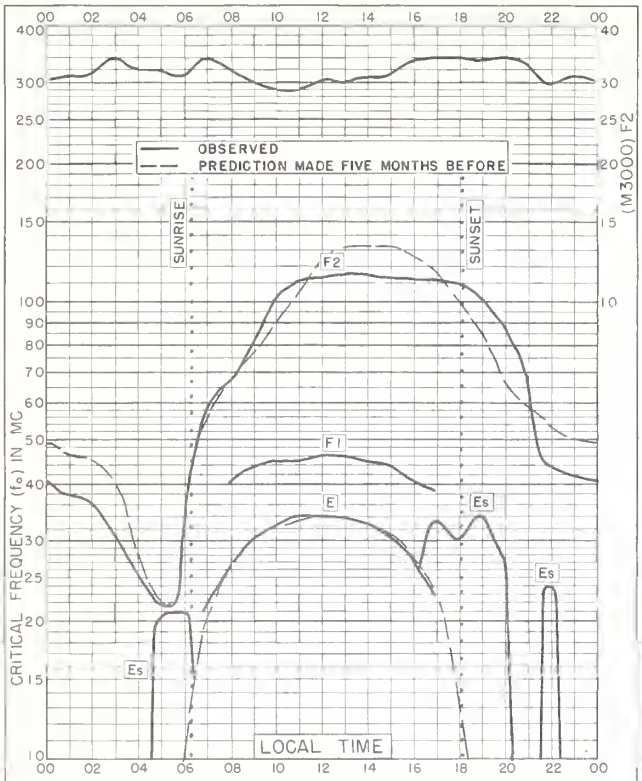

Fig. 105. CALCUTTA, INDIA
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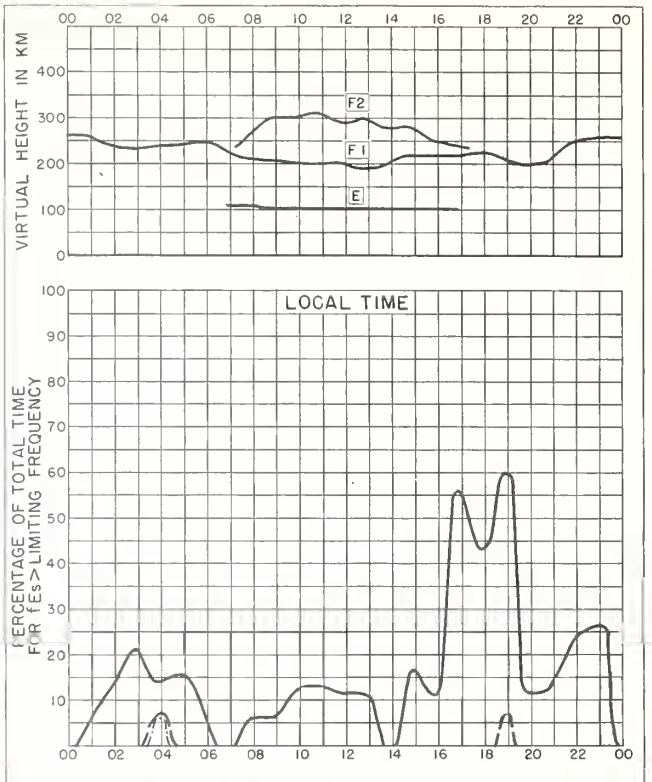

Fig. 106. CALCUTTA, INDIA MARCH 1955

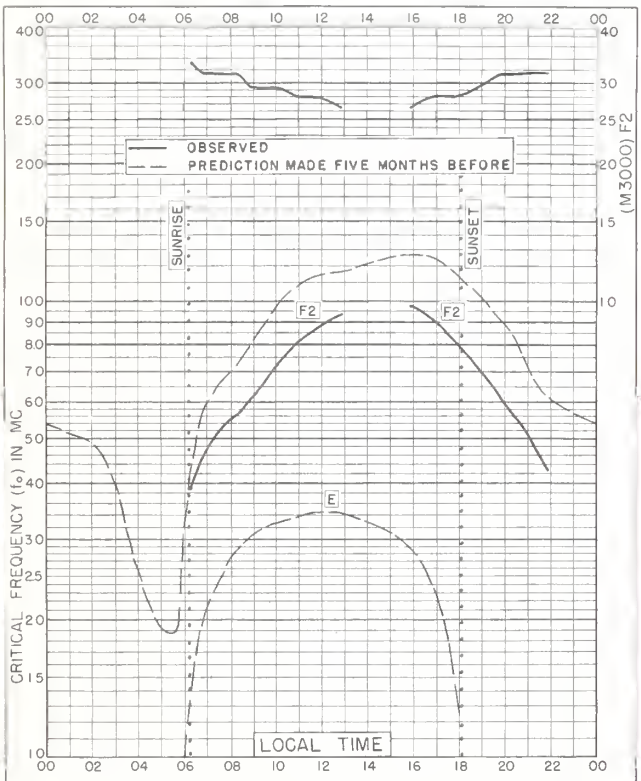

Fig. 107. BOMBAY, INDIA
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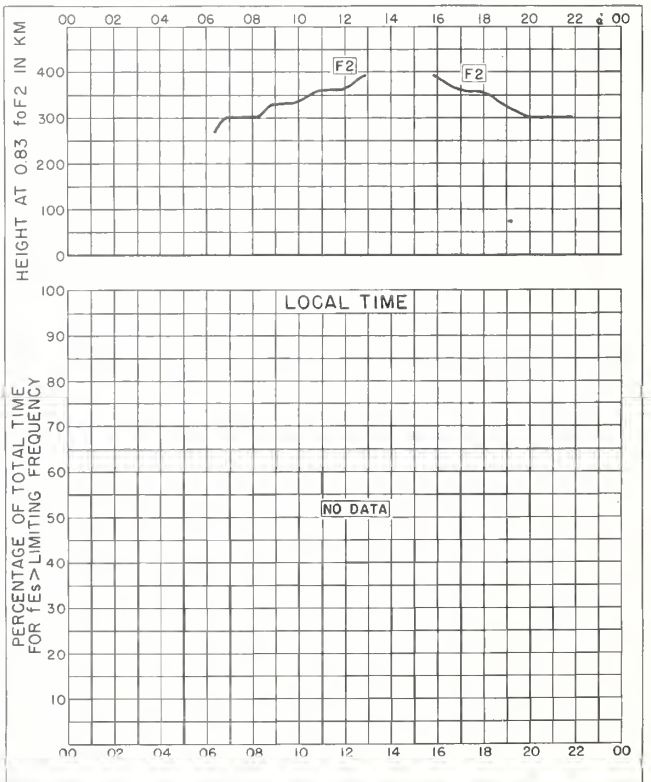

Fig. 108. BOMBAY, INDIA MARCH 1955

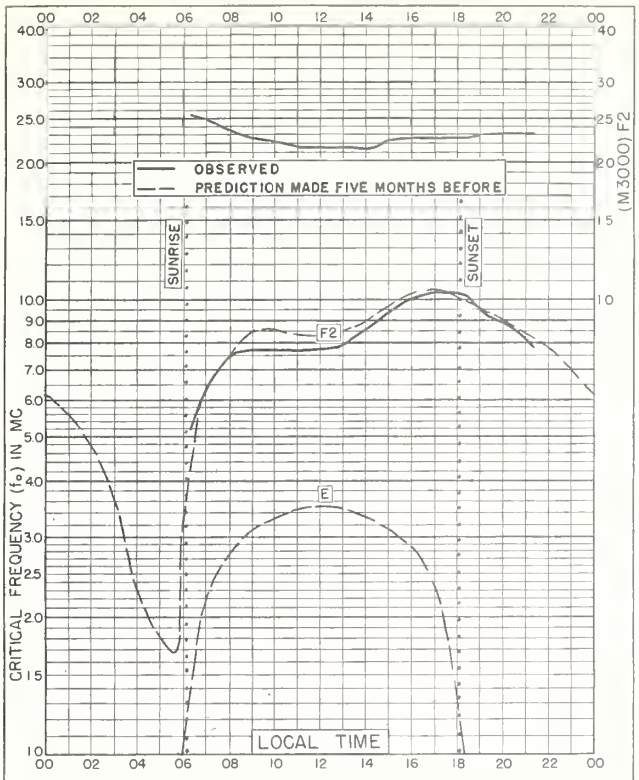

Fig. 109. MADRAS, INDIA
13.0°N, 80.2°E MARCH 1955

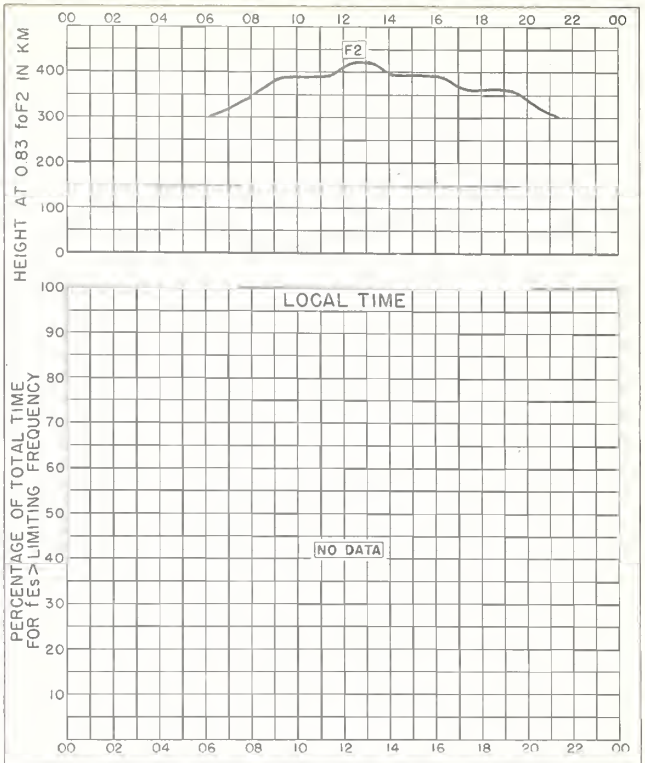

Fig. 110. MADRAS, INDIA MARCH 1955

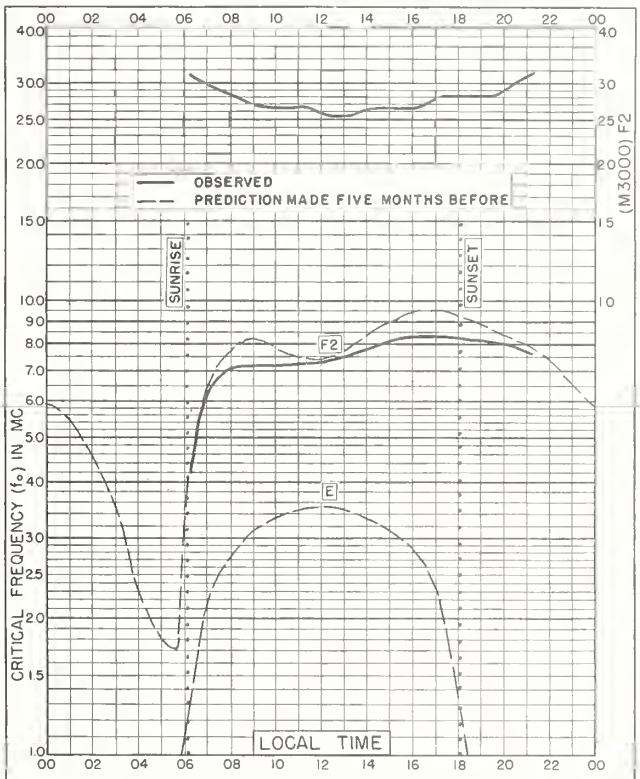

Fig. 111. TIRUCHY, INDIA
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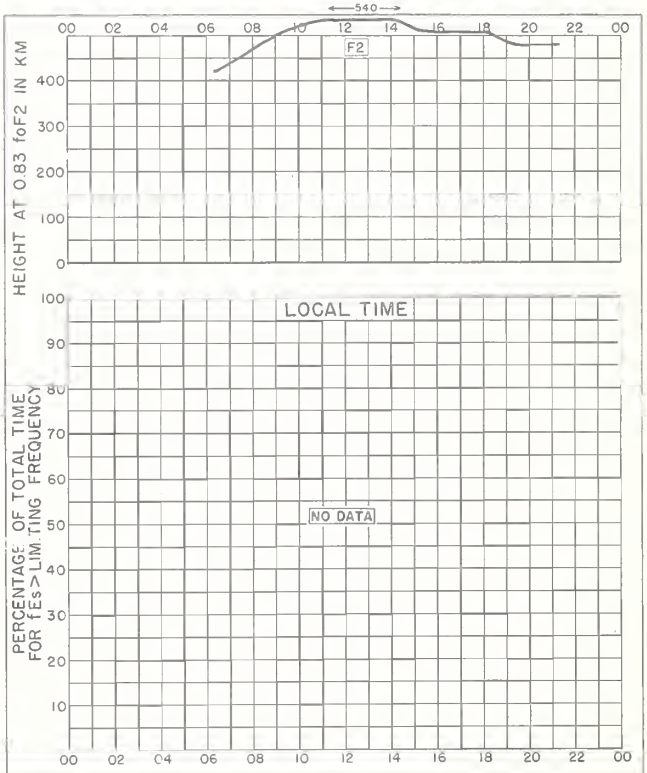

Fig. 112. TIRUCHY, INDIA MARCH 1955

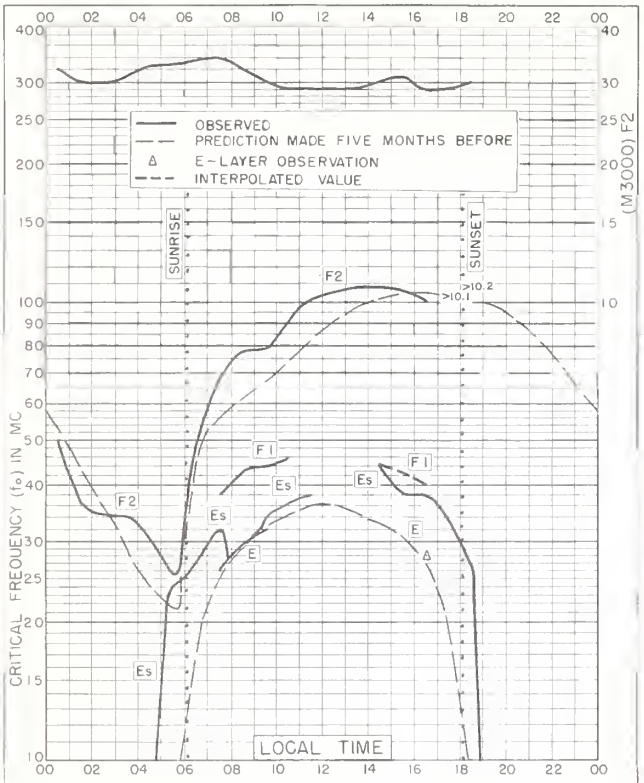

Fig. 113. NAIROBI, KENYA
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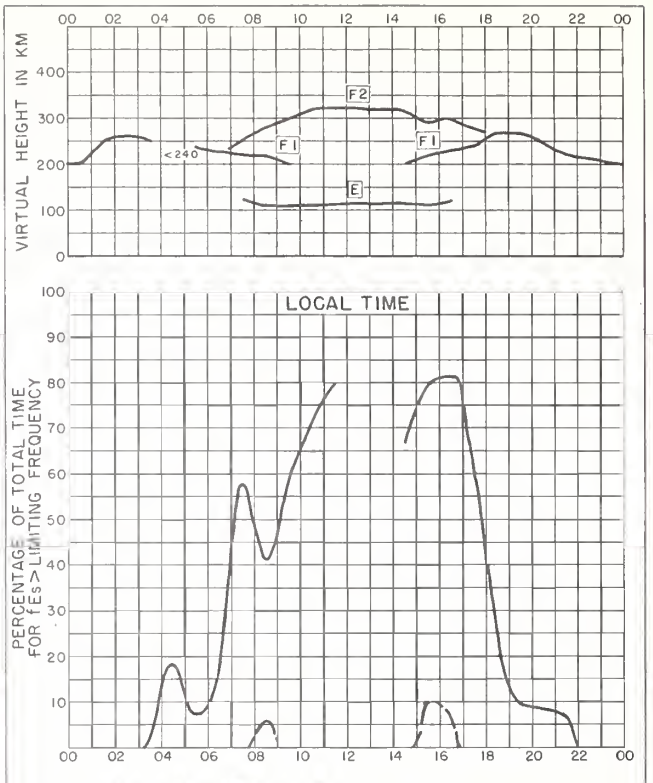

Fig. 114. NAIROBI, KENYA MARCH 1955

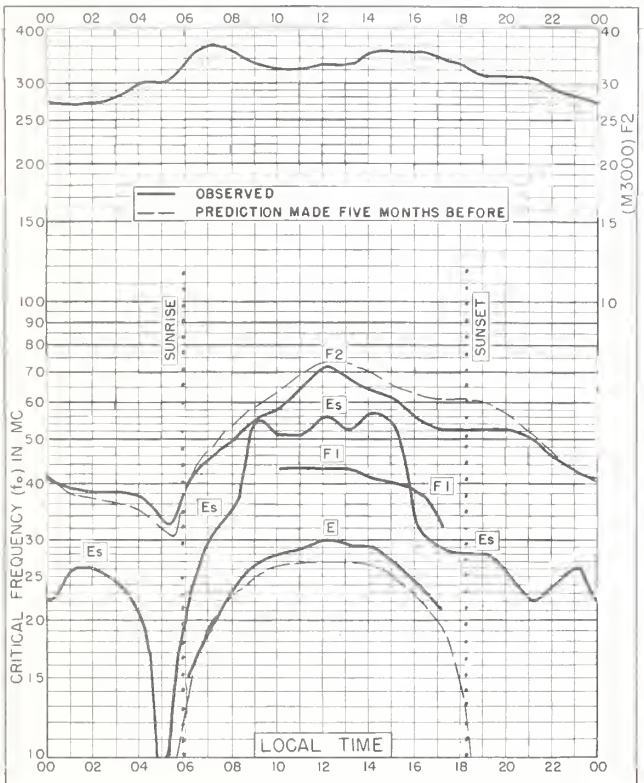

Fig. 115. FALKLAND IS.
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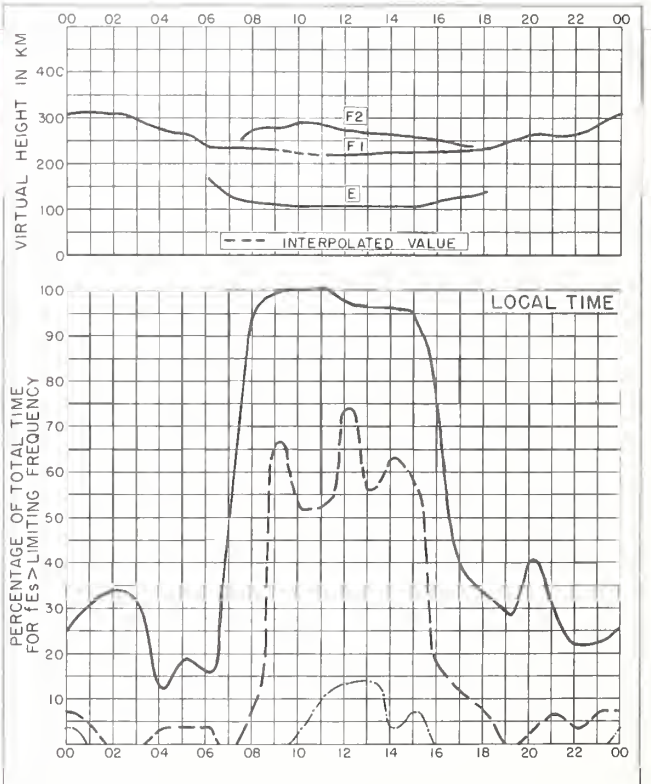

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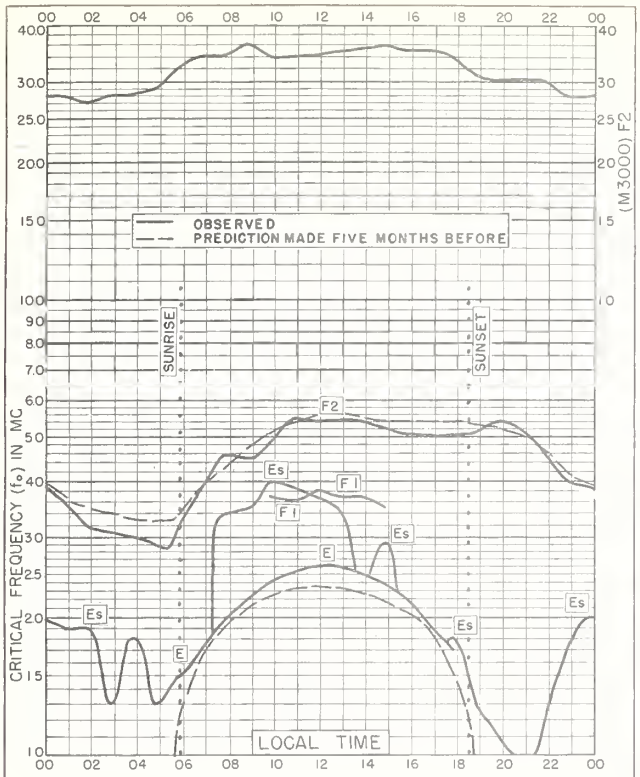

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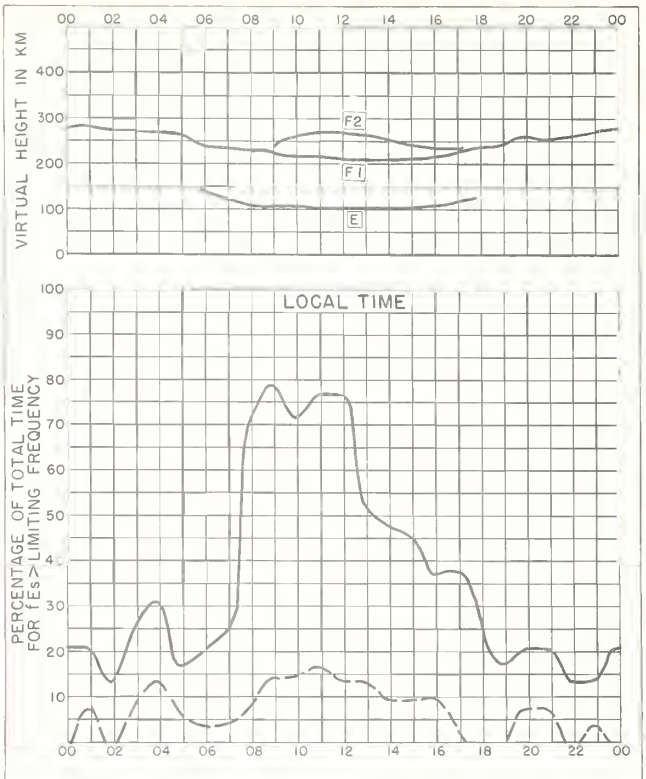

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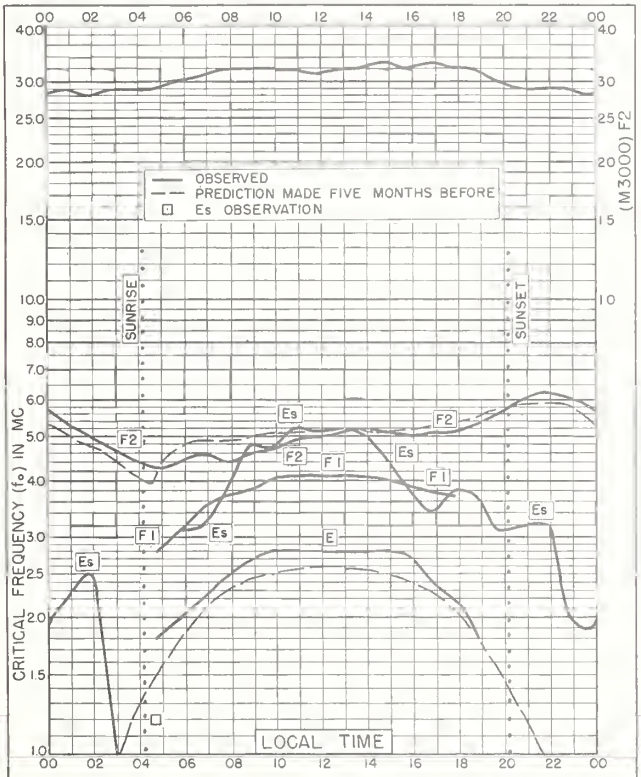

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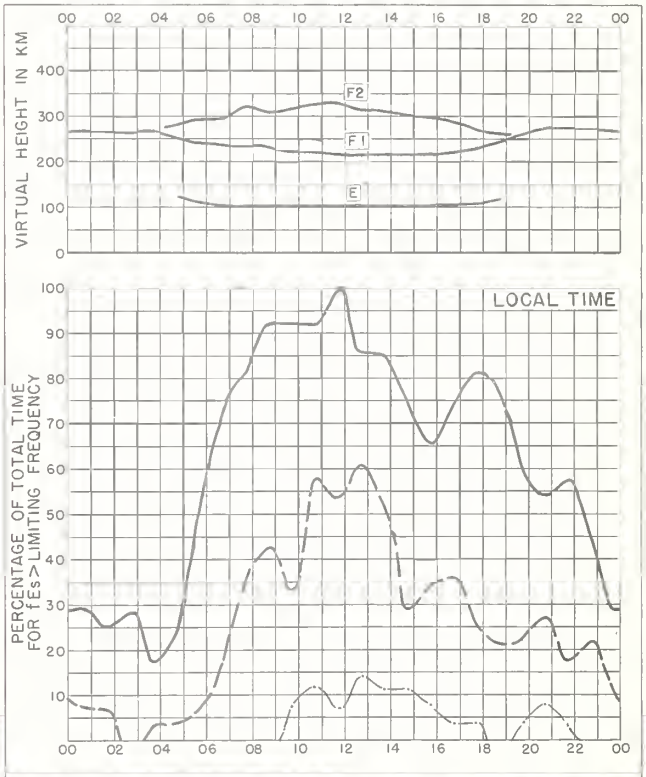

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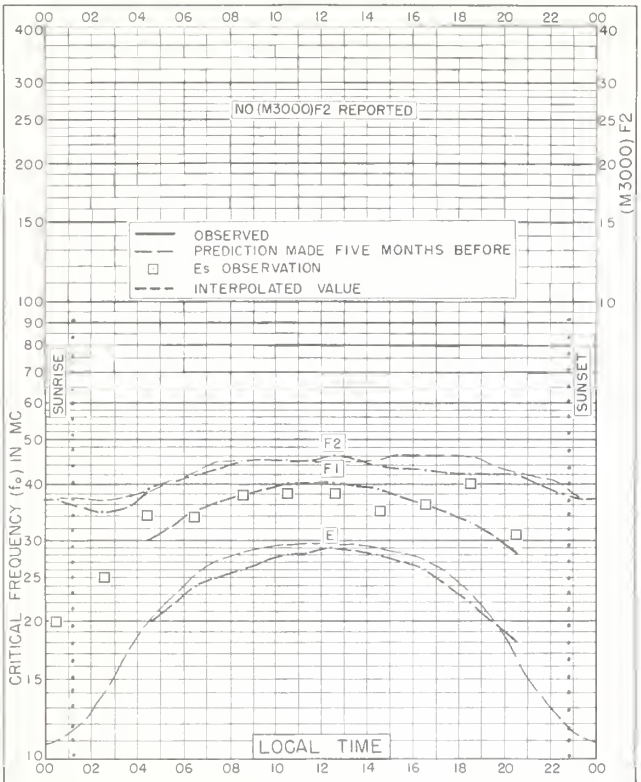

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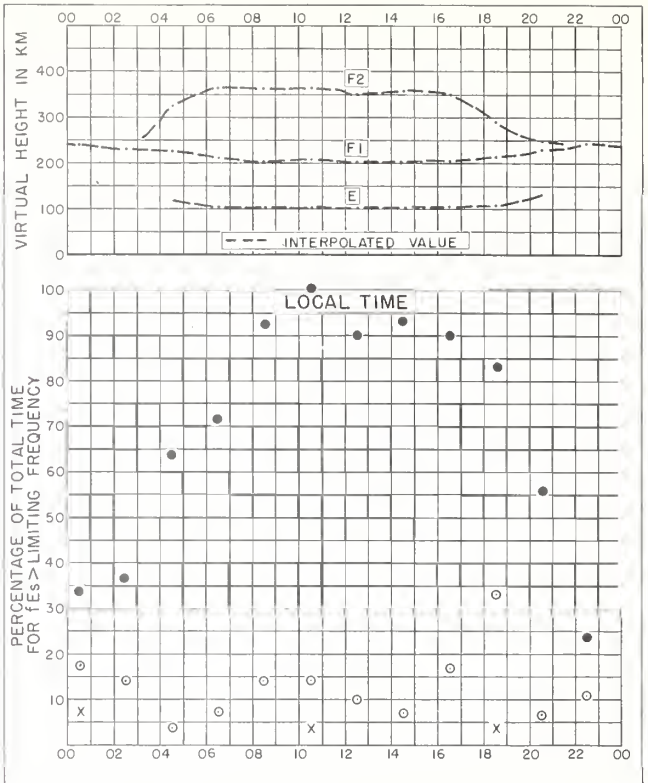
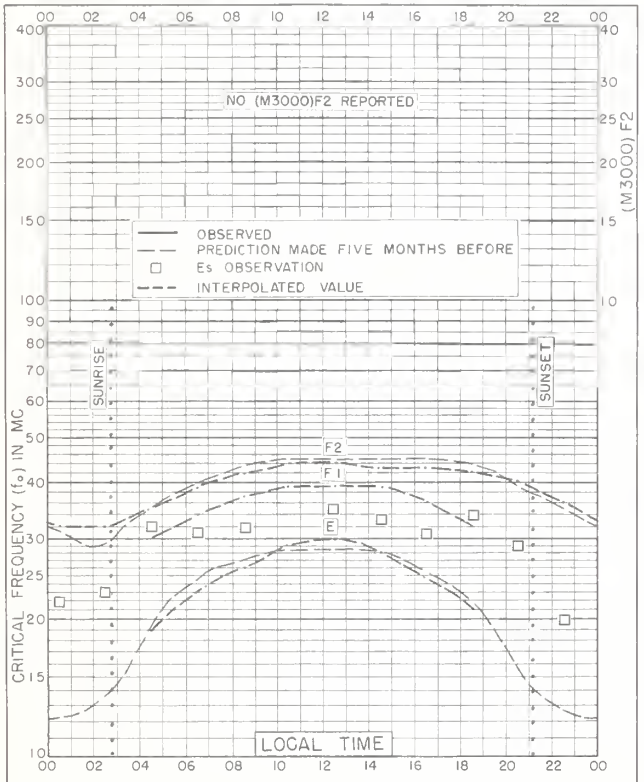


Fig. 122. LULEA, SWEDEN JUNE 1954



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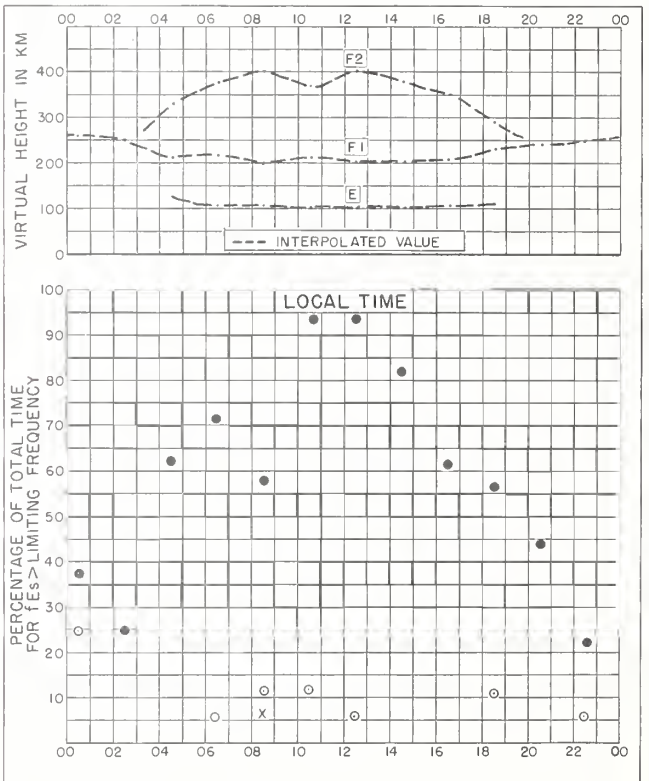

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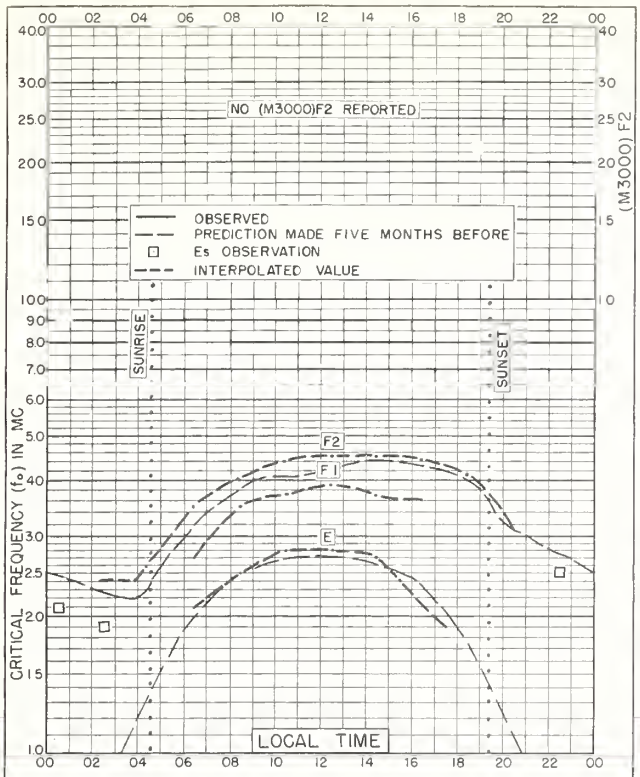

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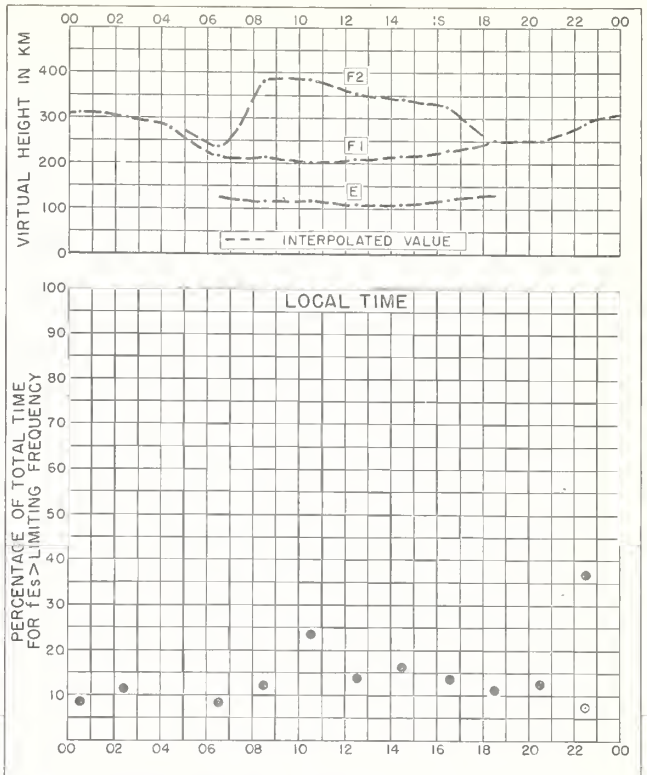

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